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ABSTRACT

Intended as a text to supplement inservice training for regular class teachers, the manual presents information on diagnostic-prescriptive teaching with mainstreamed learning disabled students. Ten sections focus on the following diagnostic aspects: referral, parent involvement, case history collection, assessment of academic abilities and disabilities, observation of learning modalities, auditory perception and language factors in learning, visual perception, psychological assessment, data analysis, and situational analysis. The final five chapters discuss delivering services (including preparing an individualized education program and selecting materials to fit the learning style), and strategies for teaching arithmetic, spelling, and reading. (CL)

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Teaching Children Who Learn Differently

[A course designed for the
regular classroom teacher
in diagnosing and prescribing
for the learning disabled child.]

Sponsored by the Bureau of Education
For the Handicapped, H.E.W. Title VI-D

Project Director
Thomas D. Rowland

Oregon College of Education
Monmouth, Oregon 97361

1978

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PREFACE

TEACHING CHILDREN WHO LEARN DIFFERENTLY evolved from the RESTORE Project staff's desire to share, in some permanent or reference form, about learning disabilities and learning disabled children who are enrolled with regular classroom teachers. Almost immediately, Education Evaluation Model Center and Child Service Demonstration Center staff became enthusiastically involved. In addition to expressing our underlying philosophy that the classroom teacher is in the best position to determine and provide for individual student needs, TEACHING CHILDREN WHO LEARN DIFFERENTLY is our attempt to provide the tools and support to help accomplish this.

The material and ideas which appear on the following pages are the result of the efforts of many people. The classroom teachers who have participated (and suffered through) the RESTORE Inservice programs without this visual reference are affectionately credited with the motivational inspiration to complete this effort. Our appreciation is also extended to staff members of the Education Evaluation Satellite Centers who enthusiastically share diagnostic and instructional recommendations and materials with us. Tom Rowland, Frank Ashmore, Bob Ayres, Carol Mathews-Ayres, Maggie Eshelman, Loydee Grainger, Susan Hill, Ken Kosko, Carolyn Malloch, Rita Smith, Tricia Takacs, and Darlene Westendorf as co-authors, share the responsibility, honor and subsequent criticisms of this effort. The fact that each undertook the writing of individual chapters will become quite apparent to the reader, as writing style varies from one chapter to the next.

We are especially grateful to Fran Kosko for her cover design.

A very special thanks is due to Betty Abrams, who patiently and cheerfully provided shape and form to our individual scribbles - And again to Betty and Ruth Hilderbrand for re-typing and preparing the final manuscript for publication.

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INTRODUCTION

With the passage of House Bill 94-142 into Publication, a mandate has been given all school districts to provide services to handicapped children in the least restrictive environment. Children with handicaps are to be placed in regular classrooms for whatever portion of the school day will be beneficial to them. They will be sent to special classes only for specific services unavailable in the regular classroom.

Not long ago children who learned differently, whether they had behavior problems or had varied academic difficulties, were the responsibility of the school's special education staff. The regular classroom teacher was not involved in implementing a program to deal with the needs of these children. There was little, if any, need for the teacher to know how to recognize, or work with, a handicapped child. The instructional pendulum has now taken a swing, and the emphasis is once again on the regular classroom teacher. While special services, and specialists to provide them, are still very important, the least restrictive environment is seen as the regular classroom and these teachers must now be knowledgeable concerning the needs of, among others, the learning disabled child.

How does the regular classroom teacher help the children in class who have been diagnosed as having a learning problem? Frequently, diagnosticians and specialists have evaluated children but in reporting their results, have failed to provide teachers with adequate information concerning remediation techniques. General information such as, Johnny is two years below in reading, he can't follow directions, he has average mental ability, etc. is already very apparent to the teacher. However, specific information in the form of recommendations dealing with specific problems would allow the teacher to establish an individualized program to teach a child to read, follow directions or whatever else is necessary to make learning an easier, more pleasurable, experience.

Teachers and administrators are becoming more aware of the necessity to be prepared to help the learning disabled child. There are genuine existing resources available that will be helpful to them and to the children they are trying to serve, such as resource rooms, education evaluation centers, diagnosticians and other certified specialists in the field.

While we are exploring the variables affecting the learning disabled child's learning processes we will also be looking at our own behaviors and how they affect the way we teach children. How do we as teachers learn best and how do we transfer this knowledge to the children? We will find that each of us has a preferred learning style which is reflected in the way we teach. The teacher who learns auditorally will tell her class to "listen up" while the teacher who is a visual learner will rely on eye contact and lots of visual stimuli in the room. By understanding ourselves and how we learn, hopefully we will see the need to leave our learning methods open ended and flexible enough to meet the learning needs of those in our charge.

The authors feel that teachers are not taught the skills necessary to work with the learning disabled child. Too many times the teacher must rely on the trial and error method to find out how to help the child. Yet no one knows more about the child and how he functions in an academic setting than his classroom teacher. Given the proper tools, that teacher can find the best method to teach the handicapped learner.

This manual was developed by a team of people interested in helping children and teachers better understand one another and to help teachers understand how children learn best. It is hoped that this manual will serve as a guide to teachers who would like to incorporate some diagnostic skills into their teaching program. These skills will be beneficial not only when dealing with the handicapped learner but with every child in the classroom.

What follows is not necessarily new; for years teachers have been doing these things. What we have endeavored to do is to bring some order to the whole process. This manual will take you through the entire evaluation procedure from the initial decision that the child needs special help to the diagnosis of the problem, through establishing an individualized education program (IEP) and monitoring the child's progress.

The same methods used by the specialists when diagnosing a child with a learning problem could be used by the regular classroom teacher. Identification of the problem, diagnosis of strengths and weaknesses, determination of the child's specific learning modality and implementation of an individualized program are all steps necessary to help meet his educational needs.

The manner in which a child learns can be as unique to that child as anything else about him. It is our belief that some children learn differently and that if a child cannot learn by the method being used, then the method must be changed to make learning happen. Some children are unable to sit and listen to the teacher for more than five minutes at a time without becoming distracted while other children thoroughly enjoy classroom discussion. Some children retain everything they hear but are totally at a loss if asked to copy anything from the board. Other children find it very difficult to function in an open classroom situation because of an overload of visual and auditory stimuli.

As we work through the material in the following pages we will be looking at the whole child, how he relates to his environment and what specific, individualized things we can do to help maximize his learning potential. We will find that some children remember best by hearing, some by seeing, while others may need to see, hear and feel in order to learn. The primary task is to discover where the learning process is breaking down vs. where it is accelerating. A determination must be made of where the child is functioning academically and what channels are open for input. By knowing the child's strengths and weaknesses, we will better be able to make sound recommendations for establishing an educational program.

Teaching Children Who Learn Differently is intended as a text to supplement the inservice training. Each of the topics covered in the manual will be discussed at length during the inservice. We hope that this manual will serve as a useful reference and will reinforce what you learn in class. We are especially hopeful that you, as the teacher, will find this material helpful as you work with the learning disabled child.

The following chapters will take you through the process involved in the evaluation of a learning disabled student. You, as the regular classroom teacher will be identifying a student in your classroom who is having difficulty in one or more of the academic areas and then taking him through the diagnostic process.

In the first chapter you will be looking at the referral processes used at the State Education Evaluation Center in Monmouth, Oregon. You will be filling out a referral form on a child you have selected to work with. The next step will be to gather information from parents. Here we will discuss parental involvement and things to look for as you work with parents. After you have gathered the referral and case history data we will discuss the academic assessment and how to determine where a child is functioning in reading, spelling and arithmetic. We will also look at word attack methods. From the academic assessment we will take a look at specific learning modalities and how they relate to the learning disabled child. Next we will go into the implications of hearing as well as auditory perception and language and how they affect learning. Visual perception will be introduced followed by the psychological aspects. There will be a chapter on looking at the data in an analytic approach to determine what information is relevant for the learning disabled child. Following that will be a selection on delivering services which involves the writing of an Individual Education Program, IEP. The remaining sections will be devoted to specific materials and recommendations to be used for working with the child who has a learning problem. These will discuss how to remediate certain deficiencies, and strengthen others. (There will be something on spelling, arithmetic, writing, visual and auditory perception, language and, of course, reading.)

Welcome to the team. We hope you will enjoy the opportunity you are about to have and that it will be a learning experience for you and the inservice teachers.

By the time you have completed the inservice training it is hoped that you will be a diagnostic-prescriptive teacher.

ONE

REFERRING THE CHILD WITH A LEARNING PROBLEM

REFERRAL

As part of the inservice training teachers are asked to identify those children who may be having learning difficulties in their classrooms. This is usually done by teacher observation. A rating scale or check list may be used but it has been our experience that the majority of teachers can identify the children who are not functioning at grade level without the use of instruments. The rating scale or check list can be a useful tool in enabling the teacher to zero in on the general areas of need.

After a child has been identified as having a problem, a referral form is then filled out by the teacher. The following is a referral form used by the Oregon State Education Evaluation Center which is located on the Oregon College of Education campus. This form helps to pull together any information we feel may be relevant in dealing with a child who may have a learning problem.

The school is responsible for completing the referral form and most of the information pertains to the child's academic experience. The parents must sign the form which establishes communication in the initial stages of the evaluation. However, the primary responsibility remains the classroom teachers'. You must supply the information about the child's functioning in the school environment.

It is helpful to be as specific as possible when completing this form. You are asked to identify specific behaviors and specific academic materials used with this particular child. You may need to examine the child's school records to complete this form. There may be information concerning previous tests or other background material which would be helpful. If the child is being seen by anyone else, such as a reading specialist, or resource room teacher, then these people should also be involved in the referral.

Once you have decided to take some action on behalf of a child in your classroom, there are many variables which must be considered. Do such things as social interaction or playground behavior have a relationship to his academic performance? Should the child's parents, physician or other teachers be consulted? Is there an effective way to correlate all the random data you have collected concerning the child into a hypothesis form and then arrive at a workable diagnosis? What suggestions will help the child to perform more appropriately? During the initial gathering of information is a good time to start trying to order your thoughts.

Often, simply by completing the form the teacher can begin to identify problem areas. The information from the referral may be used to discover clues from which the teacher may generate a hypothesis about the learning problem.

As you complete the referral form, there are several things to keep in mind.

. make sure names, addresses and ages are correct.
. identify the problem.

School Referral Form

Education Evaluation Center

Learning Disabilities

Return to: Education Evaluation Center
Oregon College of Education
Monmouth, Oregon 97361

IMPORTANT

Under the provisions of P.L. 94-142 and Oregon's State Administrative Regulations, certain procedural safeguards available to parents must be closely followed. Before submitting this referral, it is most important that the REFERRAL PROCEDURE CHECKLIST be read and the requirements fulfilled. Prior to obtaining parent consent for referral of the child to the Education Evaluation Center, it will be necessary for the school to inform the parent of (a) the evaluation process, and (b) parental rights. The informational prochure can be detached from the REFERRAL PROCEDURE CHECKLIST and given to the parent during the initial referral conference.

If you have questions about the procedure, please contact the Education Evaluation Center at 838-1220, Extension 322.

1. Child's Name ....
Birthdate .... Age ....
Grade .... Date ....

2. What is the primary problem which causes you to refer this child? (Be specific) ....

3. School District .... School ....
Teacher .... Address ....
School representative referral ....
.... Phone ....
Position ....

4. Parent's Name ....
Address ....
Street address City Zip
Home phone .... County ....

5. Physician .... Phone ....
Address ....

6. Parent signature

This is to indicate that I have been informed and counseled regarding the referral of my child for evaluation using appropriate instruments. The information on this referral form has been discussed with me. I hereby give my permission to conduct the evaluation as described.

X.................. ....
Signature Date

Previous action:

What action has been taken by school personnel or other professionals to:

a) *IDENTIFY the cause of the problem?* ....

b) *REMEDY* the problem? ....

PREVIOUS TESTS (MENTAL ABILITY)

(Do not test child; please report tests previously given)

Test & Form	Date	Age	Score	Examiner

Wechsler Tests (Scaled Scores)

Test Name .... Date ....
Examiner .... C. A. ....

Information	....	Picture Completion	....
Similarities	....	Picture Arrangement	....
Arithmetic	....	Block Design	....
Vocabulary	....	Object Assembly	....
Comprehension	....	Coding	....
Digit Span	....		

Stanford-Binet

Examiner ....
C.A. ....
Basal ....
M.A. ....

Recent Achievement Tests

Date	Test	Score
....	....	....
....	....	....

ACADEMIC ABILITY LEVEL:

1. Estimate level of daily work in: (check appropriate box)

	R	PP	P	1	2	3	4	5	6	7
Reading										
Spelling										
Arithmetic										

Handwriting: (enclose sample if pertinent to problem) ....

2. List *materials* used in class work.

Reading: ....

Method: .... phonic .... whole word .... linguistic .... other

Spelling: ....

Skills being taught: ....

Other: ....

3. *Special Services*

(a) Check available services and those used by child:

	Available	Child participates
LD Specialist	....	....
Resource Room	....	....
Title I	....	....
Speech-hearing-language	....	....
Other	....	....
....	....	....

(b) List methods and materials that have been used by the special services.

....

VISION

Yes	No	
☐	☐	Child has a visual problem:
☐	☐	Can't seem to see work on chalkboard
☐	☐	Can't seem to see desk work
☐	☐	Wears glasses

HEARING

Yes	No	
☐	☐	Child has or has had a hearing problem:
☐	☐	Frequent ear infections and/or earaches
☐	☐	Fails to follow directions
☐	☐	Other ....

Explain: ....

....

GENERAL HEALTH

Yes	No	
☐	☐	Has poor general
☐	☐	Lowered vitality
☐	☐	Excessive energy
☐	☐	Frequent illnesses
☐	☐	Frequently overcome by drowsiness or sleep
☐	☐	Frequent headaches
☐	☐	Frequent stomach aches
☐	☐	Dizzy spells
☐	☐	Other ....

MOTOR COORDINATION

Yes	No	
☐	☐	Child has a motor coordination problem:
☐	☐	In walking
☐	☐	In running
☐	☐	In writing or printing
☐	☐	In P.E. activities
☐	☐	In art-motor performance
☐	☐	Sometimesis coordinated—Sometimes not
☐	☐	Other ....

Explain: ....

SPEECH and LANGUAGE

Yes	No	
☐	☐	Child has a speech problem:
☐	☐	Stutters or stammers
☐	☐	Difficulty in reproducing sounds correctly
☐	☐	Difficulty in expressing himself in writing
☐	☐	Difficulty in expressing himself orally
☐	☐	Difficulty in understanding spoken language

Explain ....

RELEASE OF MEDICAL INFORMATION

Re: ....

Child's Physician ....

Physician's address ....

....

I request the release of any medical information which may be helpful in determining the cause of my child's learning problem to:

Dr. Thomas D. Rowland, Director
Education Evaluation Center
Oregon College of Education
Monmouth, Oregon 97361

X.. ....
Parent Signature Date

- check the child's files for any relevant information such as, previous tests and scores, other schools attended, any previous evaluations, and medical problems.
- list the specific grade level at which you feel the child is functioning.
- list specific materials and books used by the classroom teacher and/or specialist.
- obtain necessary information from other personnel who may have contact with the child such as the physical education teacher, music teacher or school nurse.
- if the child has an emotional problem and there is a conflict between the child and the teacher, try to be as objective as possible.

After you have completed the referral data you may begin to make some assumptions concerning the child. Following is a list of hypotheses which may generate from the information gathered on the referral form. These were taken from the Differential Diagnosis and Prescription Learning Disabilities, by Dr. Thomas D. Rowland and Dr. Bonnie Jean Young.

REFERRAL FORM HYPOTHESIS

DEMOGRAPHIC DATA

Child's name

- If the child's last name is Hernandez, this could be a bilingual child who would be familiar with a different culture.

- If the child's name is different the father has died.

- If the child's name is different there has been a divorce.

Birthdate

If a child has a September, October or early November birthday:

- This child began school as one of the youngest children in the class, thus he had a poor start and has built up resistance to school.

- If the child just missed entering first grade by days, he missed the prime time for initiating a learning program.

Street Address

- If the child lives in the country, he has no children to play with, thus he expended much time getting acclimatized socially and failed to learn the basics in reading.

- Child lives in a particular part of town whose residents don't value or promote academic skills.

City

- Certain communities value activities other than the academic and it would be unfashionable for the child from such a community to be successful academically.

Home Phone

- Lack of a phone may cause one to hypothesize that the family has a marginal income.
- It may suggest the need for seclusion; thus, an unlisted number may suggest that the child comes from a silent family.
- It may suggest they are in conflict with some elements of the community (bill collectors, etc.)
- This may be a "running" family.

Child's Grade

- The child has been retained and built up considerable resistance to school.

Child's Physician

- The child doesn't have a physicain because he's never needed one.
- The parents are negligent in caring for the child physically.
- The religion of the family would not permit medical intervention.
- It may seem that while they have seen several physicians in behalf of their child with a problem they have no confidence in any of them, therefore, no physician is listed.

What is the primary problem that causes you to refer this child?

- This is an open question and to some extent lends itself to a projection of feeling about or for the child.
- "This child was not referred by us." This reveals defensiveness on the part of school personnel.
- "This child won't work at helping himself learn; he's lazy." He is considered a behavioral problem.
- He has no learning problem but is a willful child.
- "The child has a reading problem but is O.K. in math and spelling."
- There is a specific learning disability.

- There is no problem of using symbols or memory for symbols.
- The child had a bad start in school and has fixated the problem in his reading.
- The child may be able to do better in reading but isn't motivated.

MENTAL ABILITY

Listed below are four examples of mental ability found in the referral form.

Example 1

Tests & Form	Date	C.A.	Total I.Q.	Verbal I.Q. Language	Perf. I.Q. Non-Lang.	Examiner
Lorge Thorndyke	9-23-71	8-4	90	89	95	
WISC-R	10-1-74	11-5	112	95	121	

- This child is inattentive in class.
- This child can't stand the competition of other children in a group situation.
- This child thrives on individual attention.
- This child is less threatened and functions best in a one-to-one learning situation.
- There has been a substantial change in this child's environment in the last three years; thus he functions better now than he did earlier.

Example 2

Tests & Form	Date	C.A.	Total I.Q.	Verbal I.Q. Language	Perf. I.Q. Non-Lang.	Examiner
Lorge Thorndyke	9-23-71	8-4	115	100	129	
WISC-R	10-1-74	11-5	95	85	110	

- This child's ability to function mentally is deteriorating.
- This child is threatened by an individual testing situation, thus he doesn't function well.

- This child has a deteriorating disease.
- This child is sensitive about his adequacy as a person.

Example 3

Tests & Form	Date	C.A.	Total I.Q.	Verbal I.Q. Language	Perf. I.Q. Non-Lang.	Examiner
Lorge Thorndyke	9-23-71	8-4	100	82	122	
WISC-R	10-1-74	11-5	100	85	123	

- This child lacks language skills.
- This child has a language expressive problem.
- This child has a receptive language problem.
- This child tends to be asocial.
- This child comes from a different culture.
- This child is bilingual.
- This child has had or does have a hearing problem.
- This child cannot identify and use the figure sound with the background (noise).
- This child comes from a silent family.

Example 4

Tests and Form	Date	C.A.	Total I.Q.	Verbal or Lang. I.Q.	Perf. I.Q. Non-Lang.	Exam
Lorge Thorndyke	9-23-71	8-4	100	120	80	
WISC-R	10-1-74	11-5	100	122	82	

- This child is verbally very capable.
- This cnild has signficant visual perceptual problems.
- This child has a motor problem.
- This child lacks interest in problem solving when it isn't verbal.

MOTOR COORDINATION

This child has a motor coordination problem in:

Walking or Running

- This child has limited neurological integrity (functioning) caused by trauma to the central nervous system; the child is cerebral palsied.
- This child is severely limited mentally.
- This child is tense (muscle tone is up).
- This child has had little experience walking or running.

Writing-Printing - Art

- This child is cerebral palsied - if this ability varies under pressure the child is cerebral palsied - athetoid - mild.
- This child has poor fine motor dexterity not attributable to cerebral palsy.
- This child is tense thus cannot write or print well.
- This child is not interested in writing or printing.
- This child is not confident enough in himself to produce (and show) any product including printing, writing and art.
- This child has a visual perceptual problem.

P.E. Activities

- This child is cerebral palsied.
- This child is not interested in physical activities, thus has had little experience, thus has not developed motorically.
- This child is disoriented in spacial relations (left-right, up-down) and/or has a visual problem that doesn't allow depth perception thus appears to have poor motor coordination - catching a ball, bumping into things.

Sometimes Coordinated - Sometimes Not

- This child is intermittently tense.
- This child is a mild athetoid (cerebral palsied) child who manifests the symptoms only under competition or emotional stress.

- This child is poorly coordinated under tension or stress.
- This child varies in his coordination skills, dependent on whether he enjoys the activity or not.

VISION

Can't Seem to See Work on the Chalkboard

- This child has a far point visual problem.
- This child's vision is all right; his ability to pick it up visually and remember it (eidetic imagery) long enough to write it down is poor.

Can't Seem to See Desk Work

- This child has a near point visual problem, thus reading from a book would be difficult.
- This child compensates for his inabilities (mental or educational) by placing his head (eyes) very close to his work, causing one to think he doesn't see well.

Wears Glasses

- This child has a visual problem.
- This child's vision was corrected late; in the meantime, because of his poor vision, he didn't develop the basic academic skills.
- This child's visual correction has nothing to do with his learning disability.

HEARING

Frequent Ear Infections and/or Earaches

- This child has had a hearing loss.
- This child's language skills are poor.
- This child has missed the appropriate auditory reinforcement for learning.
- This child's academic problems stem from the lack of receiving appropriate auditory stimulation.

Frequently Requests Teacher to Repeat

- This child has a hearing problem.
- This child has a "habit " of not listening.
- This child finds it rewarding to irritate the teacher with this kind of behavior.
- This child has an auditory figure-ground discrimination problem.

Fails to Follow Directions

- The child has a hearing problem.
- The child can't utilize his hearing to associate the sounds to initiate the appropriate activity (receptive aphasia).
- Again this child may not be able to separate the figure (instructing voice) from the background(children's voices) noise.
- He resists authority.
- He has been an overstructured child and responds only to repeated directions or directions with a threat.
- His energy level is low and to initiate and pursue a task seems overwhelming.

GENERAL HEALTH

Lowered Vitality

- This child has poor health.
- The child has allergies (respiratory and other).
- This child is too heavy for his frame.
- This child has an endocrine problem.
- This child doesn't get enough rest (sleep).
- This child has excessive responsibilities or activities outside of school.
- This child expends too much energy trying to resolve his emotional-social problems (frequently family problems).

Excessive Energy

- This child has an endocrine problem.
- This child manifests the hyperactivity syndrome.
- This child lacks cortical control for organic reasons.
- This child lacks self control via poor management.
- This child is compensating with excessive activity for lack of other favorable attitudes.
- This child is an over attender (distracted) and is frequently out of his seat.

Frequent Illnesses

- This child has a constitutional vulnerability to disease.
- This child has poor nutrition and/or sleep habits.
- This child comes from an environment not common to healthy children.
- This child may have psychogenic involvement.

Frequently Overcome by Drowsiness or Sleep

- This child may not be getting enough sleep (rest).
- This child's energy level is low.
- This child is using sleep (unconsciousness) as a retreat from his environment.
- This child is cataleptic.

Frequent Headaches

- His headaches are a reaction to emotional stress.
- His headaches associated with cyclic stomach complaints are an epileptic equivalent.
- This child has poor general health.
- This child's headaches are a result of organic trauma or disease.
- This child's headache is psychogenic.

Frequent Stomach Complaints

- This child has a poor diet.
- This child is under stress (physical or emotional).
- This child with cyclic headaches has an epileptic equivalent.

Dizzy Spells

- This child has physical problems associated with an alimentary tract or central nervous system disorder.
- This child is responding to emotional or physical stress.
- This child has poor general health.

Emotional Difficulty

Child Cries Easily

- This child's concept of himself is so poor that his threshold for crying is low.
- This child has accumulated (summated) a number of pressing problems (divorce in family, death), thus can accept few other threats without bursting into tears.
- This child more or less demands perfection of himself but his skills won't allow it.
- This child constitutionally doesn't have the inhibitory power other children may have.
- This child has learned to cry to get attention or manipulate his environment.

Seems Withdrawn - Seldom Participates, Excessively Shy or Day Dreams

- This child is rejecting the "life style" of his family.
- This child is behaving like most children from his culture.
- This child cannot afford to risk venturing into his human environment emotionally, as he has been rebuffed or rejected too many times.
- This child feels he can't compete with other children.

- This child has few skills and is aware of it, thus doesn't want to risk a failure by participating.
- This child doesn't enjoy the interaction with others as much as he enjoys his own thoughts. This is a reflection of his superior mental ability and often creative thinking.
- This child is preoccupied with trying to resolve his inner conflicts, conflicts with peers or authority figures.
- This child has an inability to deal with reality.

Excessively Loud and Boisterous

- This child has a hearing loss.
- This child has poor central nervous system control and most expressive behaviors are amplified or exaggerated.
- This child is compensating for what he feels is his lack of ability or appearance as compared to other children.
- This child is ventilating his feeling of anger via the loud voice.
- This child is hoping to get any kind of recognition from those around him even though it is unfavorable.

Easily Distracted

- This child is expected to pursue a task in which little success or satisfaction is derived.
- This behavior is part of the hyperkinetic syndrome and may respond to medication.
- This child overattends due to the low threshold for response (attending) to some or all modes of stimulation.
- This child is more responsive to inner kinds of stimulation than external and tunes out the external source of stimuli in favor of the internal.
- This child has been overstructured and can continue attending behavior only under supervision.
- This child has come from a laissez-faire environment and has never been expected to attend for any length of time.

Tenseness

- This child's muscles are toned up due to organic involvement.
- This child accumulates stress by not being able to ventilate or discharge what he feels is an infringement on his rights.
- This child continually works at the frustration level.
- This child is anxious or fearful.

Nervous Mannerisms (Tics, Tremors, Nail Biting)

- This child is anxious and, due to increased metabolic activity as a result of the anxiety, apparently gets relief from the involuntary quick movement of muscles.
- This child has an environment with which he must cope that causes him to be tense.

Overly Suspicious or Jealous of Others

- This child needs close relationships with people but feels so inadequate as a person that he is threatened by a friend or relative communicating with another person or an animal.
- This child has experienced the loss of close friendships in the past.

Excessive Complaints of Physical Symptoms, Pain

- This child may have a medical problem.
- This child may have a low threshold to pain. (also see frequent illnesses)
- This child feels the need for nurture.

Constant Motion - Moves About the Room Excessively

- This child is very curious.
- This child is very social.
- This child is distractable as part of the hyperkinetic syndrome.
- This child is anxious and finds some relief by expending energy.
- This child is "chronically" in a state of anger.

- This child is asserting himself by not doing his seatwork tasks.
- This child comes from a disorganized family.

Talks Incessantly, Without Permission or Interrupts

- This child uses talking as a way of controlling his environment; if other people aren't talking they aren't making any demands on him, nagging or being verbally critical of him.
- This child lacks control of most of his actions, including speech, due to the lack of suppressor control at the cerebral cortex level.
- This child has never learned to respect the rights of other children and/or adults.

Shows Extreme Interest in Monsters, War, Fighting, Etc.

- This child is very fearful.
- This child is angry.
- This child has been reinforced positively for this kind of interest and is not particularly pathological.
- This child is simply modeling the behavior of older siblings.
- This child has learned that he can somewhat reduce his acting out hostility by playing war etc., and that this behavior is acceptable, whereas if he tried to deal with it directly he'd be reprimanded.

Has Violent Outbursts of Temper

- This child has an accumulation of situations (usually goal obstructing) that cause him to be angry. It then takes only a modest irritation to cause the outburst.
- This is a family pattern.
- This child lacks cortical control due to cerebral dysfunctioning.
- The peers are placing a lot of pressure on this child through ridicule.
- The whole family is persecuted by the community.

Lacks Curiosity

- This child is retarded.
- This child is afraid to look or hear.
- This child is preoccupied with other problems and has what he feels to be little energy to be curious.

Is a Passive Resister

- This child has learned that he gets more acknowledgement for his existence by not doing what is expected of him.
- This child doesn't feel he can openly confront the authority figures in his life by openly fighting their demands, so he acknowledges what they want him to do verbally but he never carries it out.
- This child isn't a passive resister but is a child who will start an activity only when he knows he can do it well otherwise he won't initiate it.
- This child has attempted to fight "being imposed upon" by authority figures but finds it wasn't paying off.

What Action Has Been Taken By School Personnel Or Other Professional People To Identify The Cause Of The Problem

> The following hypotheses are generated with the acceptance that what has been done for the child is not working so at least some aspect of the program isn't appropriate or the child wouldn't have been referred.

- School personnel may not believe that etiology is important therefore they may not have worked at identifying the cause.
- Resources are not available to help identify the cause of the problem.
- Several studies may have been made but no strong suggestions as to the etiology have been made.

What Action Has Been Taken By The Classroom Teacher, School Personnel Or Other Professional People To Remedy The Problem

- The action taken was inappropriate for the child's problem.
- The action taken was appropriate but the activities pursued by the school personnel were countered by the relatives.

- The techniques were inappropriately used by school personnel.
- The same poor environment for learning persists; thus no amount of special help will counter it.
- The value system of the child will not allow him to be upgraded academically.

What Specific Methods And Materials Have Been Used By The Learning Disabilities Specialist?

- The methods and materials were not appropriately used.
- The methods and materials weren't appropriate for this child, e.g., the child may be self-oriented toward whole word method but he is being taught phonics.
- The length of time that the methods and materials were used wasn't long enough, materials were inconsistently presented, or there was no marginal reinforcement.

In What Way Do You Feel That The Education Evaluation Center Can Be Of Service With Respect To This Child's Problem?

The purpose of this question is simply to be sure that the Center is not expected to do more than it can do. For example, if they expect a psychiatric or neurological evaluation and this isn't within the limits of the personnel available this should be stated early following receipt of the referral form.

TWO

INVOLVMENT OF THE PARENT

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PARENTS

Evaluating children in a clinical setting is usually thought of as presenting tests, collecting test data, drawing conclusions and reporting the results. While this may be true, there is another aspect of the evaluation procedure that should not be overlooked, for it plays an important part in the entire process, and that is the parent interview.

The following pages are designed to share with you some ideas and/or suggestions as to what to look for during the interview, and how to help the parents help their children.

PURPOSE OF THE PARENT INTERVIEW

Why have a parent interview? The parent interview can provide an added dimension to the evaluation process. It provides personal interaction with the parents, who are involved directly with the child and the child's daily living experiences. Secondly, the interview provides the parents the opportunity to become familiar with the testing procedures and the examiner. Thirdly, the interview allows for parental input, and gives the examiner the opportunity to answer questions or clarify points of information that were not clear in the minds of the parents. Fourthly, and most importantly, the interview gives the examiner the opportunity to gather information, inferred or factual, that may prove valuable in forming a hypothesis or making recommendations, and to observe.

PURPOSE OF OBSERVATION

As a classroom teacher you learned through experience to observe children and their behaviors in various settings. You learned how and when to intervene, and when not to intervene with certain children, due to the background of information you had stored. You learned what to expect from some children and what not to expect from others, you discovered their tolerance levels, and you could foretell how they would respond in a given situation. This ability to predict was acquired mostly through observations, and was called upon frequently in your efforts to bring a total experience to the children that was exciting and rewarding.

Since observations are beneficial to the classroom teacher, then, as a teacher/diagnostician, you are in a unique position to develop and use the same observation techniques when conferring with parents or guardians of children with whom you are working and/or evaluating. Through observation you may be able to get a better insight as to now the parents and children function as a family unit, in and out of the home/school environment.

PARENT INTERVIEW — INITIAL CONTACT

The initial contact should be handled very carefully. Try to keep in mind that you are in a familiar setting, but to the parents, and the child, the testing center may appear foreign, and could be somewhat threatening to them. Therefore, the following suggestions are made:

1. Greet the parents in a friendly manner. State your name very clearly, and repeat if necessary.

2. Greet the referral (child) and extend a welcoming hand, for "touch" is very important to most young people, and it conveys the message that you are a friend.

3. Avoid plunging directly into the task. Allow time for all parites to relax and get to know each other. You may discuss incidental things, such as the weather (always a favorite topic), the trip to the testing site, etc. This can be brief, but extended just enough to build a bridge between the family and the examiner.

4. Briefly acquaint the family with the physical layout of the area, including coffee area and bathrooms.

5. Explain the schedule for the day, and any related incidentals.

The preparatory procedure is usually long enough to ease any anxieties, provide a friendly atmosphere, generate conversation and set the stage for the first interview. After you have built the momentum, move directly into the initial interview.

PARENT INTERVIEW — SOME THINGS TO OBSERVE

At this stage, the rapport between the parents and the examiner should be reasonably well established and directing the conversation toward a more meaningful interview should be relatively easy. It is at this point that the examiner should become sensitive to WHAT the parents are saying and How they are saying it. Some examples of what to observe are as follows:

I. Attitude of the Parents toward the Child

   A. How do the parents view their child?

   B. Do they speak about the child in a positive manner?

   C. What are the parents' aspirations where the child is concerned?

   D. When talking about the child, do the parents appear concerned, confused or frustrated - or perhaps all three?

   E. Observe the gestures and body language used when discussing the child, for these signs can disclose a great deal of information as to parents' attitude and feeling toward their children.

   F. Note the tone of voice, for the pitch usually indicates the amount of emotions involved. This is usually true in a positive sense as well as a negative sense.

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II. Attitude of the Parents Toward the School

A. How do the parents view the school?

B. Do they support the school or do they downgrade the curriculum and teachers, including the administrator?

C. What kind of educational background do the parents have? This could be very important when writing a prescription for the home.

D. Do the parents visit the school at times other than when there is a crisis?

E. Do school and school related programs appear to be an important part of the child's life?

III. Home Environment

A. Inquire as to the organization and distribution of chores in the home, and how well the child performs the tasks. This will give an indication as to how the child accepts and shoulders responsibilities.

B. Explore the management program in the home. This will tell if the process is democratic of dictatorial.

C. In the area of punishment, note carefully the types of punishment meted out, and how often. The frequency of punishment may indicate:

1. Soft signs of child abuse.
2. Poor home management skills.
3. Behavioral/emotional problems (Child).
4. Emotional difficulties (Parents).
5. Power struggles and/or manipulation (Child vs. Parents).

An invaluable amount of information may be obtained in this area that may prove useful when forming a hypothesis.

IV. Forming Hypothesis

The initial contact with the parents, the interview and observations during the interview can oftentimes provide information that may be useful in helping to form a hypothesis as to the etiology of the child's problem(s). Through the interview and observing the parents' behavior (gestures, voice intensity, emotions, etc.) you may be able to pinpoint a possible cause or causes as to why the child has a learning problem. Some examples are:

A. Emotional instability (Parents and/or Child).

B. Home environment not conducive to learning.

C. Expectancy levels too high for child to attain.

D. Child is a manipulator.

E. Child employs power struggle techniques successfully.

F. Child is a behavior problem.

G. Punishment not consistent or too severe.
   1. Possible child abuse (Mentally and/or Physically)

H. Poor self-concept (Child and/or Parents).

I. Poor motivation.

The list is open-ended, for there are usually multiple reasons as to why children are not successful in school, academically or socially. Good observation skills employed during the interview may aid you in ferreting out some of the reasons for their lack of success.

V. Controlling the Interview

Once relaxed, most parents will talk freely about their children, the home environment, etc. However, there are times when parents will venture into other areas of their lives, and their children's lives, that are not related to the real reason for their being in the conference or to the problem at hand. Therefore, as the examiner, you must be able to recognize this "drifting" in the conversation and make an effort to bring it back on "track" at the very first opportunity. Some suggestions that may help in this area are:

A. At the outset, try to set some structure by asking questions that will require minimum answers.

B. Preface your questions with, "Tell me, briefly ..., etc."

C. If the conversation goes too far afield, look for a break, and intervene with a question that will return the conversation to its original purpose.

D. You may also tell the parents that you wish to write most of what they are saying, which will automatically slow the verbal output, thereby, allowing you to direct the conversation into meaningful channels.

The main idea is to allow for maximum input from the parents, without too much trivia, and to improve the flow of information that has a direct bearing on the referral. And to accomplish this, in the short time usually alloted for the interview, you must KEEP CONTROL.

PARENT INTERVIEW — SECOND CONTACT (END OF EVALUATION)

The second interview should be handled as tactfully as the initial contact, for it is here that the parents become most anxious and sometimes very sensitive, depending upon the results of the evaluation.

I. Results of the Evaluation

A. Show the testing instruments, and explain each one, when deemed necessary. If there are serious doubts, give a sample subtest of one of the measuring instruments. After all, parents have learning modalities, too.

B. Language - Avoid too many technical terms. Although some parents may be from the same field or related professions, they usually prefer layman language. Secondly, this leaves little doubt for misinterpretations and/or misunderstandings.

II. Knowing the Answers

A. Avoid knowing all of the answers. Although many facts are gathered from testing batteries, and some things are obvious, it still remains that the individual is unique, and may change, in spite of the testing results, or remain static.

B. The child may improve due to special programs, special help and increased exposure to relevant academics and peer interaction.

C. The child may lose ground due to illness, accident, low self-concept, lack of interest, etc. (see item IV Forming Hypothesis).

III. Report Card - Promotion Period

If you have maintained the professional image throughout the evaluation procedure, this area will not present a problem. However, if you have given the impression that you have most of the answers to the problems discovered or reported, then perhaps you may have some difficulty if the question is raised, "Should my child be held back another year or promoted?" At all cost, avoid being trapped in the position of making this kind of decision for the parents. The reasons are obvious:

A. The child may not respond to the prescription, and continue to fail.

B. The teacher(s) will resent the outside intrusion, especially since they see the student in the classroom daily.

C. The parents may have a negative feeling toward school officials and/or staff, and are looking for leverage. (see item II - Attitude of Parents toward the School).

D. The parents may be looking for ammunition in order to institute a legal suit, etc.

IV. Home Programs

This segment of the second interview is important, for it may indicate how sincere the parents are in helping their child at home; for the home program requires a commitment if it is to attain a reasonable measure of success. The following could be of valuable service to the parents in the home program:

A. Explain at the very outset that favorable results require consistency, understanding, positive reinforcement, and above all, patience.

B. Explain the reason for the home program, and demonstrate how it should be managed.

C. Give examples of how to implement the recommendations, let the parents know that their own improvisations may also enhance the value of the home program.

D. Show how to use the materials recommended, and demonstrate how to make one's own materials.

E. Design a tentative home schedule, with the help of the parents, to reinforce the commitment. Also, if feasible, include the child in this part of the interview in order to further strengthen the commitment to the home program.

V. Questioning Period

This final stage of the interview is for clarifying points of information of the total evaluation. It allows the parents and examiner alike to recapitulate briefly the entire proceedings of the day. It presents the opportunity to ask questions on:

A. The type of follow-up procedure.

B. Number of teacher contacts and modification of prescription when deemed necessary, etc.

C. Home contacts, and home program modifications.

D. Phone contacts - home and/or school to reinforce the program or to try to deal with the unexpected.

At the end of each evaluation always find something positive to say about the child and the parents, before parting. Try to convey the feeling that the experience was worthwhile, and one of learning, whether you were able to find all of the answers or not.

THREE

GATHERING CASE HISTORY INFORMATION

HISTORY

CASE HISTORY

In order to understand the dynamics of the learning disabled child, a complete case history is requested from the parents. This information can help the teacher ascertain the etiology of the problem. Many aspects of the child's life which are outside the realm of the school environment are explored through the case history. The parents can provide information concerning family relationships, school background, birth data, developmental and medical histories.

This information may provide new insights into a child's specific learning problem. It may be that the child suffered birth trauma or that there was a serious illness or high fever during early life. These factors could have a relation to the way the child is now functioning.

In the case history parents can provide a wealth of information concerning their child. Whether they are willing to share it with you may depend on how you approach the situation. Most parents who have a child who is having problems in school are willing to accept help. It would help if you, as the teacher, would discuss the child's learning problems with them prior to introducing the case history. You may suggest that you would like to help their child overcome his difficulties by evaluating his strengths and weaknesses and that the information they can provide may be very useful. You may want to fill out the form as you interview the parents. Explain that you are going to ask them questions which are relevant to determining their child's learning problem.

It is extremely important to observe the parents' behavior as you work with them. If prior communication existed between the teacher and parent it will be much easier to initiate the completion of the case history. However, there are some parents who will be resistant to any kind of special services for their child. You should be aware of the parents' feelings about their child having a learning problem. If the parent resists any kind of help, you may want to document what you have tried to do and communicate this with your immediate supervisor.

The parent's emotional involvement with a child's learning problem can be very important. The teacher needs to understand the effect that becoming aware of a problem can have on the family. Research has shown that parents of impaired children go through a mourning process and may develop some common defense mechanisms while the family faces this crisis. When told there is a possibility that their child has a learning problem, the parents may react with a denial that any problem exists or may not see the impact of the problem. This can be a healthy reaction when it gives them time to adjust to the situation.

There are other defense mechanisms which you should be prepared for. Some parents will have feelings of guilt or depression. "It was my fault." "I didn't raise him right." "I caused it." "How could this happen?" This guilt over the past must be dealt with before they can rationally see the present needs of their child. At this point they may be overprotective of the child.

It can be very difficult to work with the parent who becomes angry and hostile towards the child. The parent may feel that the child's learning problem will place a social stigma on the family and thus may not want to accept the fact of a learning disability. This parent may refuse to communicate with anyone from the school. At this point in time it can be very difficult to deal effectively with the problem. The wisest course would be to leave the door open for them to initiate communication at a later time.

The aforementioned emotional responses may help prepare you to interpret the feelings and reactions of the parents. Communication is not always an easy task and teachers usually have scant training in dealing with these situations. The best course is to follow your own intuition, to get a feeling for where the parents are coming from. Be open and honest when communicating information about their child. Most parents will be very cooperative, unless they have had an unpleasant experience.

The following pages may help generate hypotheses to be arrived at from the case history. These are examples and not meant to be all inclusive. They were taken from Differential Diagnosis and Prescription: Learning Disabilities, Dr. Thomas D. Rowland and Dr. Bonnie Jean Young.

Parent Case History Form

Learning Disabilities

Return to: Education Evaluation Center
Oregon College of Education
Monmouth, Oregon 97361

I IDENTIFICATION

Child's Name .... Birthdate ....

Grade .... School .... Age ....

Native language (if other than English) ....

...........Father's Name .... Age .... Occupation ....

...........Address .... Phone ....

...........Circle highest grade completed in school 6 7 8 9 10 11 12, College 1 2 3 4

...........Mother's Name .... Age .... Occupation ....

...........Circle highest grade completed in school 6 7 8 9 10 11 12, College 1 2 3 4

...........Address .... Phone ....

I wish copies of the evaluation report to be sent to:

...........Parents ....School .... Physician ....Other ....

Name	Name ....
Address	Address ....
....	....
Name	Name ....
Address	Address ....
....	....

Parent Signature X ....

Date ....

II. PROBLEM

...........Our child's problem is ....

...........We first noticed this problem ....

...........The cause of this problem seems to be ....

...........We have attempted to help our child with this problem by ....

....

...........When we leave the center we would like to know ....

....

What do you feel your child needs: (check)

...........to learn sounds

...........to learn letters and numbers

...........to learn to read better

...........to become more independent

...........to get along better with brothers and sisters

...........to learn to complete work without reminders

............to learn to spell
............to learn to write better
............to learn to write sentenses and stories
............to improve his/her ability to express orally
............to learn to do arithmetic operations
............to learn better musclar control
............to learn to pay attention
............to learn to concentrate
............other ....

....

....

............to learn to do chores at home
............to become more cooperative
............to learn to follow directions
............to calm down
............to have more fun
............to get along better with other children
............to take better care of his/her own things
............to participate more in group activities
............to learn to like himself-herself better

III. FAMILY

............Parent's are: Married............ separated............ divorced............ Other ....

............Names of children in family, first born to last

1. .... M F Age ....
2. .... M F Age ....
3. .... M F Age ....
4. .... M F Age ....
5. .... M F Age ....
6. .... M F Age ....

............Child lives with: Both parents............ Mother............ Father........ Other ....

............Number of Children at home....................

............Does anyone else live with the family? .... Who? ....

............Relationship ....

............How do the other children get along in school? ....

....

............This child differs from other children in the family by: ....

....

............Tell us about the mornings at your house ....

....

....

IV. BIRTH AND DEVELOPMENT

Pregnancy (while carrying this child)	Yes	No
Adopted	....	....
Complications	....	....
High temperature	....	....
Threatened miscarriage	....	....
Communicable disease	....	....
On medication	....	....
Carried all pregnancies to term	....	....
What pregnancy for you was this child	....	....

Birth	Yes	No
Difficult labor	....	....
Difficult delivery	....	....
Baby premature	....	....
Baby late	....	....
Discolored at delivery	....	....
Difficulty breathing	....	....
Difficulty sucking	....	....
Difficulty responding to light	....	....
Difficulty responding to sound	....	....
Blood incompatability	....	....
Weight at birth	....	

Development: (Please report in months or years and months when possible)

First word	Buttoned ....
First sentence	Tied shoes ....
First sat unassisted	Rode bike ....
First walked	

Generally was development early, late, or average? ....

V. MEDICAL HISTORY	Yes	No		Yes	No
Birth defects	......	......	Headaches	......	......
Surgeries	......	......	Stomach complaints	......	......
Allergies	......	......	Vision normal	......	......
Fainting	......	......	Hearing normal	......	......
Unconscious	......	......	Eats well	......	......
High temperature	......	......	Sleeps well	......	......
Ice packed or alcohol rubs	......	......	Well coordinated	......	......
Head injury	......	......	On medication	......	......
Seizures	......	......	Wets at night	......	......
Frequent colds	......	......	Wets during day	......	......
Ear infections	......	......	Soils pants	......	......

............List diseases, surgeries or disorders that have been difficult for your child. Please explain.

....

....

....

.... The highest temperature our child has had was ....

VI. SCHOOL HISTORY	Yes	No	List any other schools attended.
............Kindergarten	......	......	....
............Resisted going to 1st grade	......	......	....
............Was first grade successful	......	......	....
............Held back in school	......	......	....
............Upset about being held back	......	......	....
............Does he/she like school	......	......	....

	Likes	Dislikes
............Child likes/dislikes	....	....
following activities at school	....	....

Explain: ....

....

VII. SOCIAL HISTORY

	Yes	No
Child easily managed		
Necessary to punish		
Gets along with brothers/sisters		
Gets along with other children		
Likes himself/herself		

Whom does he/she mind best?

What type of punishment works best?

The following are school or neighbor friends of my child:

VIII. INTERESTS, ABILITIES, RESPONSIBILITIES

...........My child enjoys doing the following:

alone	with others

My child does well at:

My child does the following jobs at home:

IX. Please add any other information which may be helpful in understanding your child.

GENERATING HYPOTHESIS FROM THE CASE HISTORY

DEMOGRAPHIC DATA

Occupation of the Father

- The employment of the father is very demanding in terms of responsibility for supervising people. This causes the father to not communicate well with the family including the child in question.
- The employment of the father results in pressure. It is a high risk job which is constantly threatening the father. He can't ventilate his feelings at work but does at home, causing the child at home to feel little self acceptance if none is found for him by the father.
- The father is underemployed and sees no future either economically or in status, and finds some satisfaction in taking these feelings out on the family.
- The father is unemployed which suggests basic economic problems but it may leave him with too much time to overstructure the children or the child in question.
- The reason he is unemployed reveals a physical or mental problem which is relevant to the child's disability.
- The father's work necessitates frequent moves for existence or promotion. This means frequent school changes for the child.

Occupation of the Mother

- The mother's hours of work make it necessary for the children to be unsupervised for a period of time habitating them to freedom of movement or action.
- It is necessary for this mother to work and it is better for the children that she does. This woman, for her own mental health needs outside contacts and satisfaction.
- This mother must work but would prefer to stay home. She is exhausted and finds the children burdensome and finds herself rejecting them and/or the marriage.
- This mother doesn't work because her husband won't let her, which reveals his own insecurities and/or distrust of the mother. This mother finds little patience with those around her including the child in question.
- The mother likes her role as a housewife and mother.

Special Occupational Situations

- There are certain other vocational situations that are hazardous for the normal development of children.
- The parent or parents are teachers and the community expects that children of teachers should be good students academically and in terms of acceptable behavior. The parent or parents in their attempt to meet this expectation place a great deal of pressure on the child. As a result, the child fights back through not doing well academically as this is where the parents are vulnerable to the scrutiny of the community.
- This father is a law officer or an attorney and he is concerned that his child not be involved with the law. Too much stress is placed on this and if the child resents this enough he will do something counter to the rules (law) of society as a way of fighting back.
- This father is a minister and his congregation expects him and his wife to be moral and righteous. They expect this child to be the same. The minister and his wife attempt to meet the demands of the congregation by placing too many restrictions on this child until he retaliates by acting out immorally.

Parents' Marital Status

- Married: They haven't been separated or divorced. This is a good wholesome marriage and represents stability for the child.
- Married: This is an unhappy marriage, one with a great deal of discord and uncertainty for the children. The parents have never separated, though they have threatened to do so. The child coming from this home didn't want to come to school for fear one or more of his parents would leave home. This child is considered a child with a school phobia when in fact his fear is that something will happen at home, such as his mother leaving without him.
- Separated or Divorced: This is a good situation for the child. There are no longer any fights. The home has become stable for the child.
- Separated or Divorced: The child longs for one member of the family to the point of not being able to concentrate on his academic work.
- Separated or Divorced: The child is shuttled from one home (mother's then the father's) and one or both of the parents try to win the affection of this child by being permissive and indulgent. There was so much feeling involved in this marriage that each of the parents are so eager to demonstrate

the ineffectiveness of the other parent that no common regime of management from one parent to the other could be established. An example: The mother doesn't feel candy is good for the child, the father gives him all of the candy he wants. The mother allows the child to stay up late when he's with her, the father on the other hand sees that the child is in bed by 6:30 to counter the regime of the mother. No matter what this child does he knows he will have a champion in one of the parents and he develops into a child who doesn't censor his behavior. This child is in trouble with the rules of society.

- Separated or Divorced: This child lives with his mother or father who in turn lives with the child's grandparents. There are too many people making demands on the child, thus the child is tired of this regime and resists any instructions at school.

- Child under the regime finds a conflict in management between one of the parents and the grandparents. In one stance the child stops behaving overtly because he doesn't know which regime he's to accept. On the other hand he chooses to take advantage of this situation and behaves any way he chooses. Either of these presents a problem of management at school.

- A parent who has been married several times may be suspected of their psychodynamics. A mother for example, who chooses only husbands who are dependent (frequently alcholic) may be a mother who insists that her children be dependent on her too. This doesn't make it possible for the child to work at school without a great deal of supervision or methods to encourage this child to work independently.

- This mother was divorced shortly after the pregnancy. She feels burdened by the presence of this child who is inhibiting her freedom. She is openly hostile toward the child. This child has little confidence in himself and his independent pursuit of academic work.

- This mother was divorced shortly after the pregnancy. She resented the pregnancy but recognizes it is socially not acceptable to reject your child; to prevent the awareness of these feelings she becomes overprotective. After all if something happened to this child, she would feel guilty of not wanting the child. This parent is the first to condemn the pediatrician, the teacher, etc., for not "doing right" by her child.

- This child is having difficulty adjusting to a new life style, having moved into a commune. He feels he is receiving less attention from his parents and is competing with the other children. This child feels that he is losing his identity and is preoccupied with this dilemma. Thus he is not doing well in school.

PROBLEM

What is Your Child's Problem as You View It?

"I don't know what my child's problem is, the school people wanted me to bring him in."

- This mother is burdened with this child and resents the imposition on her time.
- She is insensitive to the problems of the child.
- Referral of this child by the school was a punitive act directed toward what appears to be an uncooperative or threatening parent.

"He doesn't have a problem - the school hasn't helped him enough."

- This mother is overprotective.
- This mother is unwilling to accept that the child has any problem. She may feel that she might have been responsible for it.
- The child doesn't have an academic or behavioral problem other than that created by an inappropriate school regime.

"My child has had academic problems since he started school, particularly in reading."

- This mother is realistic and honest in her evaluation.
- This child is doing average work but the expectations of the parents exceed the performance of the child.
- This child may be young (August, September, October birthdate) for his grade placement. Thus he's behind other children in his class.

When Did You First Notice This Problem?

"In the first grade."

- The school hasn't avoided sharing with the parents that the child isn't doing well in school.
- These parents were interested in their child and frequently inquired as to how he was getting along.

"We didn't know our child was in trouble until he was in the third grade."

- This child made a normal academic growth the first couple of years only to find a change in his human environment that wasn't conductive to continuing his academic growth.
- A change in teachers introduced a conflict for the child.
- The school didn't communicate about the learning problem until the third grade.
- The parent is anxious to blame the school officials and is accusing them of not appropriately communicating with her about her child.
- Some intrinsic or functional problem is causing the child to do less well academically.

What Do You Feel is the Cause of the Problem?

"I don't know."

- This parent is uninterested in the child and has given little thought about his disability.
- This parent has given considerable thought to the child's problem and really hasn't any idea why the problem exists.

"I think it's an emotional problem."

- This parent recognizes that there are enough emotional-social problems in the home to cause the child to not function well at school.
- This parent is trying very hard to communicate with the clinician even at the risk of being wrong. (This would characterize any parent who offers a reasonable explanation as to the cause of the child's learning disability.)

What Solution Has Been Attempted in Resolving this Problem at Home and/or At School?

"Nothing to my knowledge."

- The parent isn't aware of any change in curriculum or management practices at school and the parents themselves haven't known what to do for their child.
- This parent is hostile toward the school even though they have tried to give special help to the child. This is a way to get back at the school who hasn't been able to solve this child's problem.

"He has been grounded at home until he gets his homework done."

- This child gets his homework done under this regime but he feels this is under duress and doesn't remember it; thus, he continues to be learning disabled.

- This child is putting in far more time (confined) on his homework than should be expected and goes to school to escape this regime. He is more and more becoming a dreamer and becoming more of a covert or overt resister to learning.

FAMILY

Child's Position in the Family

"First Born"

- This child is the oldest of three children where there was no difficulty in becoming pregnant or miscarrying. The parents, like new parents of most firstborn children, knew little about infant development. They are oversensitive about the child's development and hover over each of his developmental milestones. Lengthy statements are recorded in the baby book. They tend to overstructure this child, thus causing this child to be somewhat dependent on structure when he gets to school; thus he doesn't work at the task unless the teacher can provide constant supervision for the child. This child is less gregarious and less spontaneous than the younger children in this family.

- This child was wanted for many years prior to conception or carrying the pregnancy to term. The build-up of anticipation and the final arrival of this child have caused the parents to be overprotective with a tendency to overstructure the child as well. The reason they overprotect this child is so that no harm will come to him. This child is anxious about his environment (often physical harm) because the parents are anxious about it and have prevented this child from experiencing the usual problems of growing up; thus the child develops few coping skills. This child is considered a sissy by his peers and is considered emotionally fragile in that he cries easily. First grade was traumatic for him in attempting to cope with children with which he's had little experience. Most of his time and energy then was consumed in trying to understand or work on his anxieties in first grade, which caused him to get a poor start in school; thus he is rapidly becoming a disabled child.

- This child was the first product of an unstable marriage. The parents were considering obtaining a divorce but the mother became pregnant with this child. The unhappy marriage continued because of the social pressure brought to bear: "You shouldn't get a divorce if you have a child." The presence of the child is a constant reminder that if it wasn't for him the mother or father could have removed herself or himself from an unhappy marriage. These same parents in the meantime have had other children. This child is a particular target of their unhappiness. This child is angry at school and home because his goal of being an adequate person is threatened and he is not responsive to his teacher. On occasion he will be a passive if not an active resister. This child has learned he cannot reach out with an offer of his affection only to be rebuffed. Thus, he appears to be constricted as he relates to his human environment. This child isn't utilitizing his inner resources in his academic program.

"One of the last born children."

- This child, quite unlike the oldest child who was overstructured, is found to be understructured. This results in what appears to be poor organization ability by the child. This is a result of the parents not being able to cope with the children; they have essentially given up in their attempt to manage them. This has resulted in a laissez-faire regime which allows this child to do what he wants to do when he wants to do it. His early experiences in school were structured and he resisted being confined to other than what he wants to do. This meant he got a very poor start in school. He wasn't attending to task. In spite of the fact the child is finding security in structure and regular times to do things, he is now behind academically.

- This was the last child born to this family. There was eight years' difference between this child and the next oldest. The parents admit this pregnancy was an accident and didn't plan on the continued confinement of being parents of a school age child. The result is overprotection not only by the parents but frequently by the older children in the family as well.

- The parents find it necessary to meet the child's every wish and the other children model the behavior of the adults as they relate to this child. This child is ineffective in developing or utilizing any inner resources to pursue his school work. It is only when these parents understand the dynamics involved that they can start emancipating this child without feeling guilty.

- The same situation as immediately above is present except the older children in the family feel that the attention, affection and care that this child is receiving is the opposite of the situation for them when they were children. Being resentful, they tease this child and tend to boss him around until he becomes overreactive to any teasing or threat. This isn't a child who can concentrate on his school work.

Does Anyone Else Live With The Family?

"No one."

- This child has no conflicts within his management regime, at least from sources outside the immediate family.

"The maternal grandmother has lived with us for five years."

- This grandmother contributes to the stability of the family by baby sitting, supporting the views of managing the child offered by the parents and not interfering with the lifestyle of the parents or children.
- This grandmother openly finds fault with the management, by the parents, of the children. The child has become a master at playing these factions against each other in order to get his own way.
- The child finds no security in this conflict of management. It is assumed he is the victim, as are the parents, of a grandmother who has nothing to do but criticize and threaten. Frequently, the child feels he is the cause of all this conflict, thus feels not too adequate as a person.

BIRTH AND DEVELOPMENT HISTORY

A. Pregnancy

Is This Child Adopted?

"Yes, at three days of age."

- The parental or other background of this child is unknown.
- If the information was known it would shed light as to the etiology of this child's learning disability.

"Yes, the father of this child was illiterate although he was steadily employed."

- The father had few opportunities to go to school and quit when he was in the 8th grade to work. The disability of the blood father is unrelated to the present problem of the child.
- The father was illiterate due to an encephalitis during infancy. There is no reason to believe that there has been any transmission of the disability to this child from the father, other than an environment provided by the father that may not be appropriate for learning.
- The father's father and the father of this child both have problems of reading and spelling. They both are very adequate

in the basics of arithmetic. This child has inherited a specific learning disability.

"Yes, at 4 years of age."

- The child was well cared for physically including ample physical contact, language and other stimulation.
- The child was in several foster home care situations and while physical care was adequate, little demonstration of affection was made to the child.
- This child was in an orphanage and in spite of the personnel's best intentions, this child was neglected.
- This child was not up for adoption for some time because the professionals were suspicious that something was physically wrong with the child.
- This child became a ward of the court after the court found the child abused and neglected by the parents.

"Yes, my marriage was failing so we adopted this child thinking it would save the marriage."

- This was a desperation move on the part of the mother who thinks adopting this child will save the marriage. This is a selfish move on the part of the mother who has little regard for the child except as a way to solve her marital problems.

High Temperature While Carrying This Baby

- This high temperature had no effect on the development of this baby.
- The temperature of the mother, thus the baby, was so high the need for oxygen was increased to the point that the system was unable to supply it and resulted in some cerebral damage thus affecting the baby's growth and development.

Threatened Miscarriage

- The report of a threatened miscarriage or abortion is not related to the problem of this child.
- The threatened miscarriage or abortion may have momentarily cut off the blood supply (and thus oxygen); this may have caused some damage to the central nervous system.
- The threat of the loss of this baby has caused the mother or parents to overprotect the child.

- They were advised by their physician that it was unlikely the mother could carry another baby to term.

- The mother resented the confinement to bed brought about by the threatened miscarriage by this pregnancy. Thus she may be resentful of the child.

Communicable Disease Present

- This disease didn't affect the fetus.

- This disease changed the mother's body chemistry (and therefore the chemistry of the baby), affecting normal development.

- This disease was a result of a filtrable virus; thus the baby had the same disease as the mother, at a critical time, preventing normal growth and development.

On Medication

- The medication taken during this pregnancy didn't adversely affect the baby.

- The medication (drugs) taken during the pregnancy affected the growth and development of the baby.

- The medication itself didn't affect the baby adversely but the condition (let's say, hypertension) did.

- The baby became addicted to the drugs (not prescribed) and had withdrawal symptoms resulting in a very tense baby, with or without continued disturbance of the system of the child.

Didn't Carry All Pregnancies to Term

- This is not relevant to this child. For some reason (known best by her physician), this mother has difficulty carrying her children to term.

- The above child's growth and development was impaired because of the premature delivery.

Number of the Pregnancy

- The mother has two older children but reports that this child represents her 4th pregnancy. The 3rd pregnancy resulted in a miscarriage.

- The 4th pregnancy was threatened for the same reason as the 3rd pregnancy resulting in problems of growth and development.

- This pregnancy was aborted because the parents didn't want any more children, but they couldn't face aborting another child; thus they feel trapped.

- The above parents are too old and/or tired to cope, and openly reject this child.

- The above parents overprotect this child to avoid any conscious guilt feeling of not wanting him.

B. Birth

Difficult Labor

- The labor, though difficult, hasn't impaired this child's growth and development.

- The prolonged labor resulted in the premature detachment of the umbilical cord resulting in the loss of the oxygen in the blood supply for a period of time causing some cerebral damage.

- The pain and discomfort rendered by the difficult labor caused the mother to dedicate herself to no more pregnancies.

- The difficult labor made it difficult for this mother to accept the baby; this has resulted in overprotection, if not open rejection.

Difficult Delivery

- This delivery hasn't caused any adverse effects on this child.

- Due to the size and/or position of this baby the delivery was very difficult, resulting in mechanical injury or injury due to a lack of oxygen.

Baby Premature (Under Five Pounds)

- This child weighed well under 5 pounds, and although it was necessary to keep him/her in the hospital for almost a month there is little reason to believe this is the cause of this child's learning problem.

- This child was premature and the threat of losing the baby set up a parental need to overprotect this child; thus he is functionally handicapped.

- The development of this child continues to be slow in mental, motor and social adjustment; the rate of this developmental pattern will not change substantially.

- This child was premature and suffered lack of oxygen (or too much oxygen) and experienced some cerebral dysfunctioning.

Baby Late

- This child was one month late and weighed over 10 pounds, with no reason to believe this has affected this child adversely.
- This child was late and there was reason to believe there was a temporary pinching off of the umbilicus, cutting off the oxygen supply and resulting in cerebral dysfunctioning.

Discolored At Delivery

- This child was jaundiced at birth for several days with no apparent residual problems.
- This child was jaundiced; the mother for religious or other cultural reasons received no medical consultation and the baby was delivered by a friend. This child is found to have suffered from rh factor incompatability which has interfered with this child's development.
- This child was bluish cast for some time, in spite of appropriate medical care; he suffered from the lack of oxygen to the higher centers of the central nervous system, resulting in some cerebral dysfunctioning.
- A blackish cast characterized this child; there is some cerebral dysfunctioning.

Difficulty Breathing

- This child had difficulty breathing which was of short duration and left no problem for the child.
- This child had persistent problems of breathing, which suggests there was an inherent deficiency in the child's system. This resulted in some cerebral dysfunctioning, either specific or diffuse in nature.

Difficulty Sucking

- This child's system was immature due to premature delivery; the problem was temporary.
- This child wasn't premature and had a temporary problem which hasn't resulted in any developmental problems.
- Difficult sucking represents an inadequacy in the system which, if it persists, causes either poor development generally or a specific limitation of the child.

Difficulty Responding to Light

- This difficulty represents only a short lived problem for the child and may only reflect the immature developmental level of the child.
- This difficulty is supportive of the idea that there was a general breakdown of the system which persists.
- This was the initial symptom of a visual problem of this child.

Difficulty Responding to Sound

- This is only a temporary deficiency and hasn't resulted in any developmental problem for the child.
- This is only part of a larger syndrome of symptoms which supports the idea of a defective system which has continued.
- This child has a congenital hearing problem.

Blood Incompatability

See section titled Discolored at Delivery

Weight at Birth

- This child was well under 5 pounds at birth but the child's development has not been affected.
- This child's delivery was early because of some difficulty of the mother. This resulted in the premature delivery which may or may not have affected this child.
- This child's delivery was premature due to some constitutional deficiency of the baby which seems to be persisting.

C. Developmental History

First Word

- The first word is when some sound has meaning for a child which he or she can repeat although may not be articulated correctly.

"At twelve months."

- This is quite normal development.

"At six months."

- This is infrequently reported but it reveals a lack of awareness of this child's development on the part of the parent.

- This reveals a precocious development.

"At eighteen months."

- This child's speech is delayed and revealed only a temporary deficit in expressive language development.
- This was the first signal that this child has a lower rate of development in all functioning areas.
- This was a first symptom that this child has an expressive language problem.
- This child had early hearing problems that may or may not exist today.
- This child was congenitally deaf.
- This child finds little reason to initiate speech and is one of the rare children who are later recognized as mentally very capable.
- There has been little speech stimulation, thus this child hasn't initiated speech.

First Sentence

"At eighteen to twenty-four months."

- This child's early language development was normal.

"At thirty to forty-eight months."

- This delay of expressive language development is consistent with the other below normal functioning of this child.
- This child has experienced little stimulation or encouragement to speak; thus he hasn't developed. This child could be considered socially deprived.
- This child comes from a silent family, and while there was ample love and physical contact there was a minimum of language exchange.
- This child is a spectator and quite normal or even superior mentally.

First Walked

"At ten to fourteen months."

- This development appears normal.

"At eight months."

- This represents precocious motor development.
- The parents are not accurate in reporting the development of this child.

"At sixteen to twenty-four months."

- This child manifests a development rate below average.
- This developmental lag was functionally caused and hasn't continued.
- This child lacked appropriate physical care, including nutrition; this has contributed to the current slowness.

"At twenty-four to thirty-six months."

- This child is cerebral palsied.
- This child has had other conditions that didn't allow him to walk but which have not affected other aspects of his or her development.
- This child is generally limited in mental functioning, including motor.

Buttoned or Zipped

"Buttoned at four years."

- This child appears to be normal in desiring to be independent and has the system integrity to do this task.

"Buttoned at five years."

- This child is somewhat delayed in this task; this reflects the dependent nature of this child.
- The integrity of this child's system didn't allow him to complete this task.

"Buttoned at six years."

- This child is clearly delayed in this task due to the "immaturity" of the system.
- This child was extremely dependent, thus the inability to button.
- While this child's gross motor abilities seem to be intact, his fine motor ability seems to be limited.

Tied Shoes

- Six years is considered normal. The same hypotheses can be generated as for buttoning.

Rode Bike

"Rode a bike at four years without training wheels."

- This child has the integrity of the system and doesn't appear anxious about being hurt. This child may well be precocious.

"Rode a bike at six years."

- This child is normal in these skills.

"Rode a bike at eight years."

- This child's motor coordination and balance was delayed.
- This child fell from his bike and was hurt and he/she was too afraid to try earlier.
- This child didn't have access to a bicycle thus he didn't learn to ride it.
- This child was overprotected as the parent(s) didn't want to risk his getting hurt.
- This child's mental ability hasn't allowed him to pursue this task successfully.

MEDICAL HISTORY

Birth Defects

Spina Bifida- This neurological defect varies in its residual handicapped effect. The involvement is in the lower spinal column and may or may not require or respond to surgery. In a case of severe involvement ambulation is difficult, the sensory experience of the lower extremeties are limited, with bladder and bowel control restricted. Some cases must be treated for hydrocephaly. This may or may not result in impairment of mental ability.

Hydrocephalus- This condition is an abnormal accumulation of fluid within the ventricles of the brain. This is caused either by the excessive formation of the fluid or the systems inability to absorb it; it can be caused by an obstruction which usually can be treated. In severe cases the child can become cerebral palsied, convulsive and mentally limited. The problem lies in the destruction of the tissue in the cerebral cortex due to the pressure of the fluid.

Cardiac- Congenital heart defects can result in poor circulation and thus provide a poor supply of oxygen to the higher centers of the brain. In rare instances, this can result in some cerebral dysfunctioning.

Misshaped head- Macrocephaly or microcephaly are characterized by an unusually large or small circumference of the head. While studies have usually not been able to correlate size of head with mental ability, microcephalics are most often severely retarded. Macrocephaly is simply an enlarged (larger than average) head, and the child may have no limited mental ability at all. An arrested hydrocephaly might be considered macrocephaly and may or may not have any mental or physical effect on the child. Asymmetry of the head may or may not suggest any mental involvement. A physician should be consulted for this and the above anomalies.

Achondroplasia- This condition appears to be genetic and is characterized by a normal trunk size but very short arms and legs. A mentally handicapping condition may accompany the condition in a higher percentage of cases than usual but very bright achondraplasics occur also.

> Birth defects or congenital defects often have an impact on the parents in that they feel responsible for the plight of the child. Occasionally all of their guilt feelings come into play and as a result they tend to overprotect the child, thus further disabling him or her.

Surgeries

Central Nervous System (CNS) Involvement

- This child had CNS surgery above the level of the spine but the involvement is modest to severe and appears limited to expressive motor ability.
- This child has both motor and thought process involvement.
- This child has only thought process involvement.
- This child in spite of the surgery manifests no cerebral dysfunctioning that can be ascertained.

Surgery Other Than the Central Nervous System

- This child has suffered from lack of oxygen prior to, during or after surgery, and this has resulted in some cerebral dysfunctioning.
- This child has had cardiac surgery but it is unrelated to the learning disability or other symptoms.

All Surgeries

- This child has had major surgery that threatened the life of the child but was wholesomely accepted by the child and his family.
- This child's life was threatened which has caused the parents to overprotect him/her to the point of disabling the child.
- The child has learned that when he is ailing, sick or disabled he receives lots of attention; thus he promotes symptoms that may or may not be relevant to a learning disability.

Allergies

Respiratory

- This child has allergies that affect his breathing capacity which results in restless sleep and accompanying lethargy which in turn causes him to be inattentive. Often he doesn't feel well.
- This child has asthma with the above symptoms and accompanying low threshold to reacting to emotional-social stress. It may or may not be strictly an allergic reaction.

Skin

- This child has allergies to various products which cause his/her skin to itch and perhaps to become infected. This results in much preoccupation with the symptoms and some lethargy is observed.
- This child has the above problem but in addition is chronically nagged by parents not to scratch or to avoid certain plants or foods until the child starts to turn off his environment. This may be relevant to his disabilities in school.
- Because of the chronic nature of his allergies and his or her unattractive, blemished skin this child is depressed and withdrawn and has little desire or energy to pursue his academic studies.
- This child has a devastating problem but accepts it, and it appears to be not related to the learning disability.

Fainting

The fainting itself doesn't contribute to the child's learning problem but it can be symptomatic of other system changes that have caused the problem.

- This child has fainted several times but only in periods of illness, and there is little evidence that this symptom is related to this child's disability.

- In this instance the illness that caused the fainting also caused a high temperature which in turn caused some cerebral dysfunctioning and some learning disabilities.

- This child's physiology results in a low threshold for fainting; the fainting seems unrelated to stress or illness.

- This child faints only when under emotional stress and while this may not be causing the learning disability there would be implications for the climate for learning to be recommended in the prescription.

Unconsciousness (See Fainting Above)

- In this case the unconsciousness is a symptom of some basic changes in the chemistry of the higher centers of the central nervous system and if prolonged may have resulted in some loss of efficiency of this system.

- The unconsciousness was caused by the introduction of harmful chemicals (kerosene, gas, pills, etc.) into the system. This was treated early enough and it appears there are no residual effects to cause a learning disability.

- This child had been involved in an accident and experienced unconsciousness via a blow to the head which resulted in a cerebral palsied (spastic) condition. While the central nervous system was insulted and this child has problems of motor coordination, the accident doesn't appear relevant to his learning disability as he had the problem prior to the accident.

- Following an accident this child was unconscious for a lengthy period of time and while there was no gross motor involvement the personality has changed. The child appears to be much more crude, uninhibited in his relations with others, distractable with or without accompanying visual motor expressive problems.

High Temperature

> It is difficult to say what a high temperature is because one temperature may be high and devastating to one child while the same temperature to another child seems to have little effect. Two variable seem important. One is easily obtained; the other is almost impossible to obtain:
> 1. The duration of the temperature.
> 2. The ability of the child's system to provide adequate oxygen to the higher centers of the brain in spite of the heavier demands with an elevated temperature.

- This child had a temperature of 106° due to complications of a contagious disease for three days. Medical help wasn't available and this illness resulted in the diffuse destruction of main cells in the high thought process centers. This is relevant to the learning disabilities of this child as there was considerable regression in abilities following the illness. The rate of mental development continues to lag in contrast to what appeared to be normal development prior to the illness.

- This child had a high temperature (for three days) which resulted in convulsions. There appears to be no residual effect from this illness.

Ice Packed or Alcohol Sponged to Reduce The Child's Temperature

> Often the highest temperature is not recalled. The next best information available to determine if the child has had threatening high temperature is if ice enemas, ice packing or alcohol sponging has been prescribed to reduce the child's temperature. See High Temperatures above.

Head Injury

- This child experienced a blow to the head which resulted in unconsciousness, projectile vomiting and a need for deep sleep. This resulted in significant lowering of his/her development rate and is relevant to the learning disability of this child.

- This child experienced the symptoms above with no apparent residual involvement.

- This child experiences the above with no symptoms resulting; however, the trauma (fear of loss of this child) on the part of the parents caused them to overprotect this child thus disabling him/her in academic as well as other areas of behavior.

- As a result of a fall both his/her eyes were blackened with significant changes in behavior. This child is much less inhibited than previously and is now stated to be an acting-out child. Injury to the frontal lobe is supported by the findings of the E.E.G.

- Injury to head resulted in cerebral palsy (spastic type) which affected this child's left side. The integrity of the CNS has been impaired; there may be systems other than poor motor coordination.

- Injury to the head has caused visual disability in this child.

- Injury to this child has caused him/her to receive poor auditory stimuli and/or to associate it with other data or experiences.

- The immediate memory of this child seems to be impaired but the injury apparently has not influenced his long term memory of events prior to the accident.

Injuries other than a mechanical blow to the head could cause the above but in addition the injury may be more diffuse in its nature and could be even more devastating to the child. The intake of petroleum products without proper treatment, swallowing of other chemicals including prescription drugs in excessive amounts, a near drowning or buried in earth or snow to the point of unconsciousness are some causes that one must look for.

Seizures

- This child has had three convulsions with communicable diseases (elevated temperature of 103-104 degrees). The seizures have not continued and there is no reason to believe they are relevant to this child's learning disability. These seizures are known as febrile convulsions.

- This child has idiopathic seizures (cause unknown) that are controlled via medication. Again they do not seem to be relevant to this child's learning disability.

- Grand mal seizures characterize a problem for this child. This child's academic performance is vastly poorer than that of the other children in the family. The chemical imbalance or the injury causing the convulsive disorder appears to be relevant to the learning disability of this child.

- Temporary brief periods of unconsciousness, fluttering eyes, eyes rolled back, without slumping to the floor or even dropping a pencil she/he might be holding characterize this child's seizure disorder. The learning disability is relevant to this problem by simply not being able to attend and relate to the environment as without the seizures.

- This child prior to medication had frequent and intense grand mal seizures. The seizures are controlled with medication but the child is now lethargic and does not seem to relate well to his/her environment.

- This child has an epileptic equivalent, that is, he doesn't have a seizure as such but does have headaches and stomach cramps that seem to be cyclic in their occurence.

Headaches

See immediately above.

- Headaches are common to this child. They seem to be relevant to the pressure he experiences to achieve at home and school.
- This child has learned that headaches or other symptoms bring pleasant changes in the relationship with other people.
- This child has severe headaches that may be relevant to a seizure disorder or other more serious organic involvement.

Stomach Complaints

See seizures above.

- This child's stomach difficulties are a result of his/her not being able to express his/her feelings of frustration and emotional hurt. One may assume that this child is crying covertly, not overtly.
- This child's diet isn't appropriate for his system.
- This problem seems to characterize the father's side of the family.
- This problem doesn't seem frequent or intense enough to consider it as bringing unusual stress to this child thus isn't relevant to a learning disability.

Vision - not normal

> In the last few years there has been an overemphasis on vision, visual perceptual skills or visual motor skills as a contributor to learning disabilities. While each child with a learning disability should be examined by an ophthalmologist to rule out organic problems and to insure the best visual abilities possible for the child, there is little evidence that eye exercises or motor activities enhance academic skills but may improve motor skills. It seems that the consistency of visual perception, even though distorted, seems more important than the fact that someone has distorted visual perception intermittently.

- Though this child is blind (congenital) in one eye this isn't contributing to his learning disability.
- This child is blind in one eye for neurological reasons. The integrity of the central nervous system is poor; thus faulty vision and a specific learning disability due to neurological

causes are present. The learning disability is due to the gross neurological problem that also caused blindness in one eye and not because the child was blind in one eye.

- This child's visual disability, corrected, still doesn't allow this child to benefit from normal print available to him; thus the child needs larger print, a magnifying lens or another instrument to enlarge his materials.

- This child's vision is such that he cannot utilize both eyes for depth perception. He frequently bumps into things and can't throw or catch a ball readily. This problem shouldn't contribute to academic problems other than those caused by the ridicule of other kids and the scorn from an athletic father.

- This child makes reversals in his reading, spelling and arithmetic. He is using his left eye as dominant and it is more natural for him to sweep from right to left than left to right. Because he sees it this way and recalls it via eidetic imagery backwards he produces it backwards.

- This child also makes reversals and it seems to be a problem of attending as he is right eyed.

- This child makes reversals and loses his place. In a test of eyedness he is found not to be either strongly left or right eyed. It is suggested he uses one eye one time and then the other eye.

- This child makes reversals but he relies on auditory memory for his printing or writing. His oral sentences are often scrambled as well as his writing.

- This child's vision though faulty has only recently been corrected. In the meantime he has learned to use his hearing rather than vision.

Hearing - not normal

- During infancy this child had a hearing loss that not only delayed language but caused the child to learn other ways of communicating (as did the parents) and he is still learning to use his hearing.

- This child has a neural hearing loss and the same cause of the hearing loss has caused other learning disabilities, if not mental retardation.

- This child has a hearing loss that is selective of what consonant and vowel sounds he can receive. He seldom hears all of the sounds in words. This is a child who would do poorly on an auditory discrimination test.

- This is a child whose primary language isn't English and whose language doesn't include some sounds, common to English; thus when they are presented auditorially they aren't heard or used. A method other than phonics must be considered.

- This child's environment has been comprised of ridicule, nagging and yelling. He has found it necessary not to hear and has become habituated to not listening. At school he is inattentive and not learning at an appropriate level.

Eats Well - no

- This child is a picky eater; the parents overprotect the child. These parents are afraid of this child or they are afraid of hurting his personality development.

- This child is a picky eater simply because it is a way of asserting himself with these parents. He eats appropriately when he is with neighbors and friends.

- Excessive eating is an organic (CNS) involvement.

- Excessive eating represents loneliness for this child.

- Excessive eating reflects the poor efficiency of the digestive system (he is slim).

- Excessive eating goes with the hyperactivity of this child, thus he needs lots of food.

- This child feels he's not getting his share of attention, affection and regard in this family. He eats everyone else's food as retaliation.

- This child drinks 2 quarts of milk each day. He is full of milk and eats no vegetables (his source of magnesium), and as a result is hyperactive.

- This child's intake appears to be modest but he is obese, breathless and has little energy to devote to any goal including academic pursuits.

Sleeps Well - no

- This child has many internal and/or external conflicts and therefore doesn't rest well during the period of sleep.

- This child sleeps only five hours, but this doesn't seem to be relevant to his learning disability.

- This child continues to have a reverse sleep curve which is relevant to an organic (CNS) problem (encephalitis).

- Excessive amount of sleep needed by this child is due to his need to escape what he considers to be an angry primitive environment.

- This child's bed is often torn up in the mornings. He is suspect of having nocturnal seizures.

- This child is hyperactive; one would think he would need lots of sleep but this is not the case. He doesn't appear to need the usual amount, and this lack of sleep has nothing to do with his learning disability.

Well Coordinated - no

- This child is poorly coordinated in both fine and gross skills and appears to have a general lag in development, if not known as mentally handicapped.

- This child is poorly coordinated in competitive activities but not in individual activities. This child simply cannot compete; his fear of failure causes excessive muscle tone and poor coordination.

- This mentally gifted child has no interest in motor activities and has developed no motor skills. The integrity of the system would have allowed it but the child simply wasn't interested.

- This child is sometimes well coordinated and at other times isn't. A study of when he is poorly coordinated reveals that it is during a period when he is under pressure to write well. This child is a mild cerebral palsied (athetoid) child who gets along well until he is under pressure to do well or a threat of punishment. This child is often thought of as a child who could write well all the time if he wanted to.

On Medication

See section titled "Seizures".

- This child, 9 years of age, has recently been placed on Ritalin which has curbed his hyperactivity and has allowed him to attend better and for longer periods of time. In the meantime he is far behind academically, is discouraged, and is still fighting the habit of not attending.

- This child takes antihistamines which help his allergies but also make him somewhat lethargic and inattentive. It is difficult for him to attend to his academic studies.

- This child is on Ritalin (or amphetimines) and it makes him more hyperactive. The physician would want to reevaluate his medication.

Wets At Night

- This child wets only at night with no soiling and frequent voiding during the day. This child has a small bladder. A physician should be consulted.
- This child is following the pattern of other members of the family including parents, grandparents, etc.
- This child appears to be tense and this tension may be relevant to the wetting at night.
- This child has an infection and should consult his/her physician.
- This child wets while in bed just before time to get up. He/she has learned that this really upsets mother, which is a goal of this child.

Wets During The Day Only

- This child wets only while playing with other children outside. This child is competitive and social and waits too long.
- This child is an angry child and demonstrated it by wetting during the day.
- This child has a physical problem and should be seen by a physician.

Soils Pants

- This child has a persistent but modest soiling problem due to an infection, parasites or weak sphincter muscles.
- This child soils only during the day; this is symptomatic of his/her hostility or anger.
- This child is resentful of authority and is fighting authority by soiling.
- This child feels he/she is so bad as a person that to bring the peer and adult scorn by soiling is welcome.

Diseases, Surgeries, Disorders

The clinician is looking for diseases, surgeries or chronic disorders that have interfered with the integrity of the child's system or has caused the family to disable the child.

- The child has a circulatory problem that limits the supply of blood (thus oxygen to the higher centers of the nervous system).

- The child has a pulmonary problem that doesn't allow the child the amount of energy necessary to cope.
- This child has had an insult to the central nervous system which doesn't allow him/her to function normally.
- This child's life was threatened which has set up a pattern of overprotection by the family thus disabling the child when independent effort is expected.
- The family is anxious about the health of this child and the child has picked up the anxiety and is thus immobilized.
- This child has an endocrine problem resulting in an appropriate activity level or development.

Elevated Temperature

See previous section on Temperatures.

SCHOOL HISTORY

Kindergarten - yes

- This child went to Kindergarten and made a marginal adjustment even though there were lots of children to play with in his neighborhood; this reveals an intrinsic problem.

Kindergarten - no

- This child didn't attend Kindergarten and was socially immature as he entered the first grade program. He spent most of his time adopting socially rather than working at academic tasks.
- This child lived in the country, too far from a Kindergarten to attend. Not only did he not have other children to play with but he had little opportunity to develop social skills in the Kindergarten.
- The parents of this child delayed his entry into Kindergarten because they felt he was immature.

Resisted First Grade

- This child was overprotected, overindulged and pampered; this resulted in conflict with the teacher and resistance to school.
- This child was unsuccessful academically and socially, and therefore became resistant to school.
- This child was mentally handicapped, and not being able to predict or anticipate his environment, readily resisted going to school.

- This child had medical problems that were aggravated by the "pressure" of school.

Was The First Grade Successful - no

- After examining the birthdate of this child he/she was found to be one of the youngest in the class.
- This child is mentally handicapped.
- There were too many children in this classroom to properly attend to the needs of this child.
- This child couldn't adjust to the personality of the teacher; therefore he did poor work.
- This child was hyperactive for medical reasons.
- Because attention and conformity were not expected at home, the teacher was unable to cause him to attend his academic work.
- Over-disciplined, this child wouldn't carry out the instructions short of punishment.

Held Back In School

See the section titled "Was the First Grade Successful" above.

- This child had nothing to say about being retained. He was resentful of having been retained and wouldn't work.
- The parents wanted the child retained, the school didn't, and the school personnel subtly were determined to prove their point by not supporting the child.
- The school wanted the child retained, the parents didn't, the parents were determined to prove their point by not supporting either the school or their child.
- This was a bright child who simply wouldn't do the work but had the necessary academic abilities which made him even more resentful of his plight of having been retained and has caused him to be further away from a challenging academic program.

Upset About Being Held Back

See section titled "Held Back In School" above.

Attended Other Schools

- Because of the itinerant nature of the father's work it has been necessary for this child to attend several schools. In so doing it has been impossible for this sensitive child to form any substantial attachments with peer or teachers because of the adjustment necessary upon moving again.

- Attending several schools was an easy adjustment for this child, but the reasons for the frequent moves reflect a very unstable family. It wasn't the moves causing this child's academic problems but a difficult home situation.

- This child seems to not have suffered from frequent moves.

Does He/She Like School

> The following are often considered to be school phobic reactions. The children often are dragged into the school against their will. More often than not it is not a fear of school but simply a need to be home to maintain the integrity of the home or the relationship between this child and other members of the family.

- This child is a physical child and spends every moment outside playing. He/she finds school confining and his/her need for physical activity is thwarted.

- This child finds the management regime substantially different than at home and is having difficulty adapting to it.

- This child doesn't want to be in school not because he/she doesn't like it but because he/she wants to be home; a baby sister or brother is getting all of the attention when he/she is at school.

- This child would rather be home because the mother has threatened to leave the father and the child doesn't want mother to leave without him/her.

Likes/Dislikes At School

> One is looking for the following here:
> 1. the observation ability of the parent where this child is concerned
> 2. the likes and dislikes to determine the level of the child's interests
> 3. to determine whether the interests are social
> 4. to determine if the history is relevant to his/her current likes and dislikes
> 5. to relate the prescription to the activities the child likes

Neighborhood Friends

- This parent states that the child has friends, but the parent doesn't know who they are. This is a parent who is not sensitive to the needs of the child.
- There are no neighborhood children to be friends with; thus the child lacks social experience.
- The parent knows the names of the children and is responsive to the social needs of the child by inviting children into their home.

Child's Interests

- This parent states that the child has no interests. This is a parent who has covert if not overt resentment of the child.
- The parent reveals that the child's interests are solitary; the child has learned that social engagements are not rewarding.
- The parent reveals that the child's interests are modeled after those of the father or mother. This may indicate who might help the child best with his/her learning disabilities.

SOCIAL HISTORY

Child Is Easily Managed - yes

- This child's learning disability is unrelated to his/her social behavior.
- This child is readily managed using the parent's standards but not the standards of neighbors or school personnel; his problems of conforming behavior are relevant to his learning disabilities.
- This child is not an acting out child, but he is withdrawn and a mild passive resistor. He/she may not be relating to the classroom activities and therefore isn't doing well academically.

Child Is Easily Managed - no

- This child is hyperactive because of a chemical imbalance that responds to medication.
- This child is hyperactive because he/she doesn't have the necessary suppression of the impulse life due to CNS dysfunctioning.
- This child is overdisciplined at home and is a management problem but not at grandmother's or at the neighbors. This appears then to be relevant to the excessive demands on the child. This may or may not be accompanied by learning disabilities.

- This child's early management was lax and inconsistent; presently the parents, recognizing that they are losing control, have tried to tighten up on his/her management only to find he/she is even more resistant. The same behavior is manifest at school.

- This child is openly defiant of any "arbitrary" demands on him/her and in general resists authority; this characterizes his/her classroom behavior as well.

- The parents are in marital conflict and use this child as a buffer. If one parent asks the child to do something the other parent says he/she doesn't have to. The parents disagree as to the management of this child. The child ends up doing what he wants to and carries this attitude to school with him.

Minds Mother Best

- Seldom do parents suggest that the child (boy or girl) minds the mother better than the father. Because mother is frequently getting dinner, doing the household tasks, she cannot follow up on her threats whereas the father, home from work, frequently can. The children soon learn the pattern and press the limits with the mother.

- The father accepts no responsibilities where the children are concerned; the child is more responsive to the mother.

- There is an open confrontation between the father and this child. The child is convinced that the father's demands are arbitrary and thus minds mother.

- The father is a stepfather (new to the scene), and this child is having difficulty accepting the role of the father in the home.

Minds Father Best

- The mother is overwhelmed with her responsibilities of a child or children, being a wife and homemaker. She has become resentful of her plight and demonstrates hostility both to the husband and the children.

- Because mother doesn't (cannot) follow up on her demands, this child is not easily managed; this difficulty may be transferred to the school setting.

- The mother has felt trapped by this child because she was seriously thinking about a divorce when she became pregnant. Her family is against divorce ("Think of the child"), thus there is covert if not overt hostility toward the child, thus the child is resistant and defiant to the mother.

Necessary to Punish the Child - yes

- This child is punished to relieve the anger or frustrations of the father and/or mother. The intensity and frequency of the punishment is almost irrelevant to the behavior of the child. This is a child who occasionally cannot stand positive comments or to have good things happen to him/her because it is felt he/she is so bad it is necessary to act out to receive punishment.
- The child, attempting to assert himself/herself as an individual in the family, has declared war and finds it gratifying to upset the parents even though it means punishment.
- This child, for organic reasons, is extremely difficult to manage and as a last resort the parents have chosen physical punishment.

Gets Along With Other Children - no

- This child feels very inadequate and can't accept the slightest threat without reacting to another child or adult vigorously. This was precipitated by over-demanding parents.
- This child is simply modeling the behavior of siblings at home.
- The parents have taught this child to fight, not just defend himself/herself.
- The child, not doing well academically, finds himself/herself on the defensive. He/she cries easily and is easy prey for other children to satisfy their own hostile needs.

Gets Along With Brothers and Sisters - no

- This is the oldest child in the family and this child experienced considerable demands on him/her when younger. The parents, in the meantime, realize that what they expected earlier was unrealistic and have relaxed with the younger children, causing resentment of their "favored" position by this child.
- The child is one of three children; the other children are closer in age and interests and will not allow this child into their activities.
- This child attempts to compete with the older children in the family and feels he should be able to have the freedom they have. This results in frustration and anger toward the older children and parents.
- The parents found it difficult to understand the needs of this child, being the sex with which they have had little experience; neither had any sister and because this child is the only girl, they find her difficult. She feels the boys are favored and resents them.

Dislikes Herself/Himself

See above section titled "Get Along With Other Children"

- This child has threatened to destroy himself/herself because it is felt that he/she is contributing to problems for the parents who are unhappily married.
- This child has threatened self destruction only to manipulate the parents.
- The human environment has tried very hard to help this child feel more adequate, but the child is surrounded with other children who seem to do better academically and socially.
- This child lacks impulse control and is self-rejecting following an acting out episode for which he is sorry.

Differs From Other Children In The Family

- This child's problems seem to be common to the problems of other children and may reflect a genetic similarity.
- This child's problems are common to the other children's and suggest a difficult home environment.
- This child was different than the other children from the beginning: he had problems of eating, was more difficult to toilet train etc.. This child has a substantial genetic difference from the other children (genetic variance or genetic error).
- This child has been different from the beginning in language development, in sociability and in control. Cerebral dysfunctioning is seriously considered.
- This child has been different. It is because of the difference in attitude about this pregnancy versus the pregnancy with the other children that has caused the parent or parents to behave differently to this child.

Other Children In School

- The other children get along just fine in school academically. This child is manifesting a specific learning disability and it appears to be unrelated to family stress or mismanagement.
- The other children do well academically and socially while this child does not do well. This is relevant to the child's position in the family and/or attitude of the parents and siblings toward this child.

My Child's Interests

. To establish the child's interests may have implications for helping him/her make a better behavioral adjustment, including learning. It is also important to realize that he seldom enjoys working or playing with others as well as to know that he is last if left on his own to generate or maintain any activities.

Mornings

> This item can reveal the organization of the family and how it may be influencing the development and utilization of the inner resources of the child.

. The mother reports she calls the child several times before he gets up, she reminds him to get dressed, to eat or he'll be late for school. She may even drive him to school if he's missed the bus or will otherwise be late for school. This is a child who is not developing the inner resources that will allow the child to function independently as an adult. This is a child who has learned he has a monitoring system outside his being, and he simply waits for someone to tell him what to do. Often in the classroom he doesn't heed group instructions and will respond only when a demand is made directly to him.

. The above child is in contrast to this child who has been encouraged and allowed to make decisions for himself and to suffer the consequence as well. This child is aware of the rhythm of the family in the mornings and even though he can't tell time yet knows when he should be dressed, be finished eating, and be ready for school.

FOUR

ASSESSING ACADEMIC ABILITIES AND DISABILITIES

ACADEMIC

Assessing the child's level of performance in the various academic areas is an essential part of the evaluation. By using some of the diagnostic tools along with observation you can determine not only the appropriate levels for the child, but also some of the other factors which may be affecting the child's learning.

Basically there are two ways to assess a child's academic ability: product analysis and process analysis. Product analysis is the more traditional and less complete means of evaluation. It implies looking solely at the grade level score the child receives on a particular test or subtest. For example, a teacher using the product analysis approach would use the grade level score a child received on a chapter test in arithmetic or the grade level scores received by the annual group achievement test to determine academic ability. Product analysis is a necessary part of the evaluation in that it tells you the appropriate grade level materials in which to place the child. However, assessment of academic ability by product analysis alone is not sufficient.

The method of evaluation which is successfully applied at our center is process analysis. Process analysis includes product analysis but takes it one step further. Not only does process analysis provide you with a grade score but it also provides you with how the child is going about a task, e.g. how he/she is encoding and decoding words, answering comprehension questions and solving arithmetic problems. In process analysis you examine the kinds of errors the child is making, how consistent they are, and determine if they indicate a skill deficit, a perceptual deficit, etc. In process analysis you may even wish to ask the child how he/she arrived at a particular answer. In administering tests to your children, we want you to acquire skill in the use of process analysis.

There are many instruments available for determining academic ability. At the evaluation center we primarily use the Wide Range Achievement Test (WRAT), combined with an Informal Reading Inventory (IRI) to assess a child's skills in word recognition, spelling, arithmetic, and oral, silent and listening comprehension, respectively. We have found these tests to be reliable, as well as quick and easy to administer.

This chapter will give you some insight into the various tests and some disgnostic tips that will assist you in using process analysis to obtain a more complete evaluation of the child.

ASSESSMENT OF SPELLING, WORD RECOGNITION AND ARITHMETIC USING THE WIDE RANGE ACHIEVEMENT TEST

The Wide Range Achievement Test (WRAT) is a very useful, quick, and easily administered disgnostic instrument. Not only will the WRAT provide the examiner with a child's grade equivalent, standard and percentile scores in Word Recognition, Spelling and Arithmetic skills, but it can also give information as to the child's strengths, weaknesses, method of word attack, etc.

The WRAT contains 3 subtests, Reading (more appropriately and subsequently called Word Recognition), Spelling and Arithmetic. There are two levels to each subtest, Level I and II. Supposedly Level I is intended for children from age 5 years through 11 years-11 months and Level II is designed for persons from 12 years of age through adulthood. However, at the Center we generally use Level I with all the children regardless of age. The reason is twofold. Since the children we see are children with learning problems we find it important that these children experience as much success as possible on various tasks. By administering Level I to all the children, including those 12 and over, we are allowing them to do more problems and read or spell more words than they would on Level II. In addition to allowing the children to feel more successful, Level I will provide us with more diagnostic information because the child is doing more work.

We have found at the Center that it makes little difference which level of the WRAT is administered with regard to the resulting grade score. Thus, it makes sense to administer the level (Level I) which will provide the child with maximum success and you with maximum diagnostic information.

ADMINISTRATION

It should not take more than about 20 minutes to administer all three subtests of the WRAT. The subtests need not be given all at once, nor do they need to be given in any set order.

Our goal is to learn as much as possible about the child in a short period of time. Thus we must take advantage of every opportunity to discover the child's strengths and weaknesses. One such opportunity comes even prior to the actual administration of the WRAT. We have found it very informative to hand the child the blank test booklet and let him/her fill out the information at the top. It is interesting to note which children are able to fill out information beyond their name.

The following questions are just a few which you may want to ask yourself while the child is filling out the top part of the WRAT test booklet:

- Does the child attempt to fill in all the blanks, even those he/she doesn't understand/
- Does the child attempt anything beyond the name?
- Does the child request your assistance in reading items he/she can't read or doesn't understand?
- Does the child ask for your aid in spelling items such as the school's name, examiner's name, etc.?

The child's general fund of information:

- Does the child know his/her birthdate including the year?
- Does the child know what M and F stand for? Is he/she familiar with the terms male and female?

- Does the child know his/her school, the date, etc.?

Academic Observations:

- Is the child able to read the various words?
- Can the child spell his/her name, school, etc.?

As you can see, a wealth of information about the child's personality and academic skills can be gained before you even begin the actual administration of the subtests.

SPELLING

The spelling subtest requires that a child copy marks, write his/her name and dictated words. Because of the points allowed for each task, it is possible for a child to score at a 1.0 grade level by only copying the marks accurately. For this reason the examiner must make note of just what the child did to achieve his/her grade score, particularly at the kindergarten - 1st and 2nd grade levels.

Once again, observation of the child at the task is crucial! Don't spare the note-taking. Jot down your thoughts and observations as you watch the child. For example, while watching the child do the spelling subtest you may want to look for:

- the speed with which the child tackled this task.
- the visual-motor coordination of the child.
- perseveration.
- reversals of marks, letters or words.
- neatness.
- the child's attitude toward the task.
- whether the child uses cursive or manuscript, or mixes these when writing.

In addition to observation of the child during the task the examiner needs to do an error analysis of each spelling mistake the child makes. Try to discover just what it is the child is doing; is there consistency to his/her errors; do the errors indicate a skill deficit or a modality weakness? The types of errors made will suggest to you the areas of learning which need to be further explored.

Some possible hypotheses which may be generated from some common spelling errors on the WRAT are:

Error		Suggests Possible
and	an	Auditory discrimination problems
order	oder	
must	muss	
will	well	
boy	doy	Visual memory difficulties
will	wil	
reach	reech	
light	lite	Phonic speller but lacks skills
cut	kut	
nature	nacher	
edge	eg/ej	
reasonable	reasble	Auditory memory difficulties
imaginary	imagery	

There are no set rules for categorizing the types of errors. The examiner must take a look at the whole picture of the child's errors and then determine if there is a pattern. What the child may be lacking could be as simple as "the final e rule" or as complicated as severe auditory deficits.

At the Center we sometimes have found it beneficial to deviate from the traditional administration of the WRAT spelling subtest, which includes saying the word, using it in a sentence, and repeating the word. We have discovered that some children tend to become overloaded by too much auditory input, e.g. word, sentence, word. These children may become confused and only write part of the word presented, may write another word from the stated sentence or may attempt to write the whole sentence. If you suspect that the child is being overloaded with too much auditory stimuli, then try giving the child the word only. When you think the child may need clarification as to the word (e.g. "and" or "an") just use a phrase such as "bat and ball" to pinpoint the word.

Jastak and Jastak recommend that the test be terminated when the student makes 10 consecutive errors. The point at which you should stop depends on the child. For some children it would be a very defeating experience to attempt to spell that many words without success. For others you may find it diagnostically advantageous to allow them to miss more than 10 consecutive words.

ARITHMETIC

Level I of the Arithmetic subtest is comprised of an oral and a written part. Testing is to begin with the written computations. Children 8 years and above are directed to work as many problems on the page as they can. They are reminded to look carefully at each problem to see what they are supposed to do - add, subtract, multiply, or divide, and then put down their answer in the space on or under the lines. They are urged to try each problem in succession.

Younger children (ages 5 to 7 years) are asked to read the first problem. If the problem, including the signs, is read correctly, the child is asked to give the answer and then write it down. They are then instructed to read each problem and write the answers on or under the lines. If a child is unable to read the first problem, the written part is discontinued and the oral part administered.

The oral part of the subtest consists of counting dots, reading numbers, showing fingers, etc. Children of ages 5 to 7 and persons who obtain a score of less than 5 points on the written part are given the oral part of the subtest.

Recording the child's answers is important for subsequent scoring of the test. On the oral part underline the last dot correctly counted and pointed to. For the other tasks, underline the correct answers on the form and cross them out if incorrect. On the written part, correct answers are to be circled and incorrect ones, crossed out.

There is a total possible score of 20 points on the oral part of the arithmetic subtest and 1 additional point is scored for each correct answer on the written computations. If only the written part is administered the 20 points from the oral part are added in to obtain the total arithmetic score.

The manual suggests time limits for various parts of this test. It is felt that more diagnostic information can be obtained from the WRAT if these limits are disregarded. It may be beneficial, however, to record how long it takes the child. Often it is helpful to give the oral part of this section first just to help the child feel more at ease and more successful. It may also be advantageous to ask the child how he/she arrived at a particular answer. It is frequently helpful to note what is said for later reference. For example, questioning may reveal that the child knows the process, he just doesn't know the number facts. Close observation of the child generally allows one to discover the child's method for figuring the number facts, i.e., recall, counting on his fingers, tapping his foot, dots on the paper, etc. Two clever tricks children frequently use are shown here.

$\begin{array}{r} 4 \\ \underline{+3\vdots} \end{array}$ The child says 4 then counts 5, 6, 7, as he touches each dot.

$\begin{array}{r} 8 \\ \underline{+5} \end{array}$ Using points on the number for reference, the child again counts the dots to obtain his answer.

It is helpful to note the particular method the child uses, but more importantly it is essential to determine if that method is effective for the individual. If so, encourage its continued use. If not, it would be wise to include this information, as a skill the child needs to change.

There are times during the arithmetic subtest when you may wish to offer assistance to the child to determine if he/she can perform the particular problem with guidance. Some examples are:

Supplying the child with the meaning of an abbreviation such as hr. = hour, yr. = year, ÷ = divide, etc.

Ask the child to describe what it is he thinks he is to do, giving him encouragement to attempt the problem.

Question the child about a problem on which you suspect he made a careless mistake to see if that actually is the case.

Again it is advantageous to note the guidance that was given as well as the student's response. This may be helpful in subsequent remedial planning for that child.

For diagnostic purposes, frequently the least important information obtained from the WRAT arithmetic subtest is the grade placement or achievement score. As was suggested, it is possible to obtain much additional information such as learning abilities, specific skills, and attitudes, from close observation and questioning during the test administration.

It is important to determine the cause of the child's errors. Are they the result of not knowing the basic facts; lack of understanding of the basic operations; a particular process deficit (e.g. subtracting from zero); or perhaps just carelessness? Insight as to why the child is making mistakes is necessary before we can improve his/her performance.

For more information on the analysis of errors see the chapter on Arithmetic.

WORD RECOGNITION

Level I of the word recognition subtest consists of 2 parts, a pre-reading level (matching and naming letters) and a reading level (pronouncing words). The pre-reading section is administered if you suspect the child does not know the letters, or if the child exhibits difficulty in reading the first row of words.

The amount of knowledge about the child which is gained from administering this subtest is tremendous. Once again, observation of the child is crucial. You must write down exactly what the child says for each word and indicate how he/she goes about attacking the word.

MARKING

In order for you to record the child's pronunciation of the words on the WRAT form, it is necessary to give the child a blank WRAT form to use for the reading of the words. It may be helpful to xerox the back page of the WRAT and have it laminated so that you are always assured of having a copy for the child to read.

It is beneficial if we all use the same marking procedure for this section so that we can share the same interpretation of the child's performance by merely examining his/her WRAT. We will use the procedure that is mentioned in the word attack section of the manual. For example, if when shown the word "cat", the child sounds it out using the phonic word attack method, the examiner would write c-a-t over the word cat. If the linguistic method of word attack is used by the child, (that method in which the child searches for a known unit of graphemes, and then combines it with the sound of an initial consonant or blend) the examiner would mark at-c over the word cat. Suppose the child is a whole word reader and made a mistake on the word cat, calling it "eat" because of the similar shapes of the words and configurations of the letters. In this case, the examiner would write the word "eat" above the word cat. When a child comes to a word he/she does not know, write DK above the word. Be sure to indicate by your marking what method of word attack the child used.

When the child makes an error, draw a slash through the first letter. When the child says the word correctly, underline the first letter of the word. It is important to mark each of the child's correct and incorrect responses immediately. Frequently, if a child sees you making marks after only some of the responses, it arouses suspicions and shakes his/her confidence. It is often helpful to tell him that you will be writing some times while he is reading before he begins this subtest.

Let's see how you are doing. The following are some samples of children's performances on Level I of the Word Recognition subtest:

Level I

r·e·d t·ō w··ork w·ă·s h·e·m

cat see red ~~t~~o big ~~w~~oork book eat was ~~h~~im how

This child indicated a phonics approach to unlocking the words. Because this child has some difficulty with the first row of words, the examiner should administer the elementary portion of the test (identifying and matching letters) to check the child's knowledge of the alphabet.

Level I

dig walk Who

cat see red to ~~b~~ig woork book eat was him ~~h~~ow

than little e-ven spill black

~~t~~hen open ~~l~~etter jar deep even ~~s~~pell awake ~~b~~lock size

w-e-ther figure tray left steak lamb str-uck

weather should lip ~~f~~inger ~~t~~raày ~~f~~elt ~~s~~talk cliff ~~t~~ame struck

On this sample portion of the WRAT the child has made a number of errors based on the length and configuration of the words. Although this child made several attempts at using phonics on words not known, he primarily called a word based on its general shape. This child is most definitely a whole word reader.

As on the Spelling and Arithmetic subtests, the Word Recognition subtest allows the examiner the opportunity to find out much incidental information about the child. For example:

- Does the child need lots of encouragement and support after each word?

- Does the child need to be coaxed to continue when the words become a challenge?

- On the words the child doesn't know, is he able to figure them out if you give the first syllable or two?

- Do the child's word attack skills exceed his vocabulary level? Ask the child the meaning of some of the more difficult words.

- Does the child look at all the words and say something similar to "I can't read all those!"

- Does the child use his finger for tracking? Does the child lose his place easily?

It is apparent that the WRAT can give us a lot more information than the child's functioning grade level in the three academic areas of Spelling, Arithmetic and Word Recognition. It can provide us with information about the child's personality, general fund of information, modality preference or weakness, and specific skill deficits. It is hoped that you will see the administration of the WRAT as an opportunity to discover all this about your child.

READING COMPREHENSION

Evaluating a child's reading ability requires much more than the assessment of his word recognition skills on the WRAT. We must also look at the child's comprehension skills. The Informal Reading Inventory (IRI) is a convenient reading test which we use to determine a child's comprehension levels. It is administered on a one-to-one basis and takes approximately 20 minutes. Although the IRI consists of both graded word lists and graded paragraphs, we will concern ourselves primarily with the child's comprehension of the graded paragraphs.

From the IRI we can gain an abundance of information about the child's reading ability. Some of the questions answered by the IRI are:

- What is the appropriate level of difficulty for a child's books for school reading and for pleasure reading?

- Is the child's comprehension affected by whether he/she is reading orally or silently?

- What level of understanding does the child have when the story is read to him/her?

- Is the child's method of word attack in paragraph reading the same as on the WRAT word list?

- Does the child use context clues?

- Does the child have difficulty with one area of comprehension more than others, i.e. vocabulary, inference, fact, etc.?

- What behavior does the child exhibit: tenseness, anxiety, pointing, repetitions, etc.?

- Does the child need a lot of reinforcement and encouragement?

The IRI determines three reading comprehension levels for the child: Independent Level, Instructional Level and the Frustration Level. The meaning of each of these levels follows:

READING LEVELS

Independent Level This is the highest level at which a child can read easily with very good comprehension and recall. Books at this level would be appropriate for pleasure or library type reading.

Instructional Level This is the highest level at which a child can do satisfactory reading provided he/she receives preparation and supervision from a teacher; comprehension and recall are satisfactory. This is the level of material at which the child should be taught reading lessons as well as content area reading.

Frustration Level This is the lowest level and the one at which the child's reading skills break down; comprehension is faulty, recall is sketchy and the child may exhibit signs of emotional tension and discomfort. The child should not be taught reading at this level; it is much too difficult.

The three reading levels have proved to be a very useful set of concepts and have helped to clarify thinking about the meaning of "reading level." For example, if we know a 5th grade child's independent reading level is 3rd grade, instructional reading level is 4th grade and frustration level is 5th grade, then we know that for the child to be most successful he/she should be placed in books which are on a 4th grade reading level in class and supplemented by 3rd grade level books for independent study. If we expected this child to read independently in the regular 5th grade text books, we are likely to find the child's effort and accomplishment disappointing.

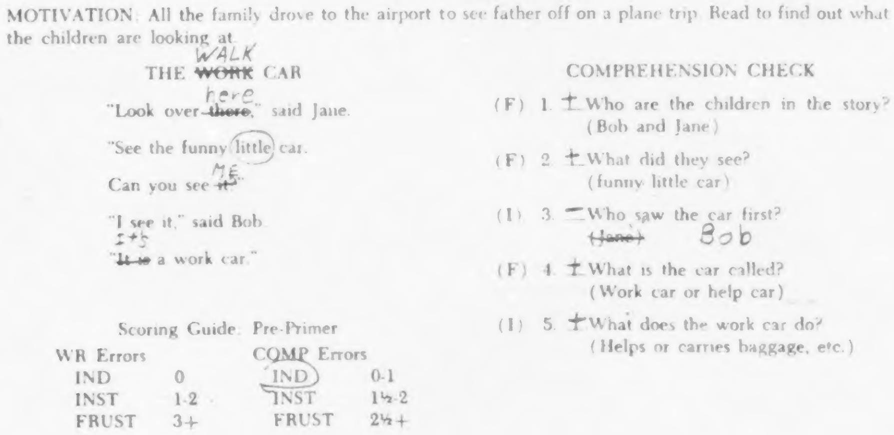
The Silvaroli Informal Reading Inventory is the one which is used in our training sessions. Because the Silvaroli IRI has three forms (A, B, & C) we are able to assess the child's comprehension in oral reading and silent reading as well as listening. One reason for this is to determine if there is a significant difference between the child's ability to comprehend that which he/she reads aloud and that which he/she reads silently. We have found that some children do better when they verbalize as they read. It appears that they may need to have that auditory input for maximum comprehension. These children may also tend to read less carefully when allowed to read silently; it may be too easy to skip words, sentences, etc. On the other hand, the child who comprehends better when reading silently may be one who becomes nervous and tense over his/her oral expression and therefore, unable to concentrate on the content of what he/she is reading. Since we are primarily concerned with identifying the child's strengths and placing him/her in a program he/she can be most successful in, it is easy to see how advantageous it is to know if indeed the child does comprehend better when the material is read silently or orally.

The other form of comprehension obtained from an IRI is listening comprehension (referred to as hearing capacity in the Silvaroli IRI). To determine listening comprehension the teacher reads more difficult selections to the child to determine if his/her level of understanding of material which is heard is beyond the instructional reading level. We have found children with reading problems who are able to comprehend what is read to them more easily than what they read themselves. For example, a 4th grader whose instructional reading level is at 2nd or 3rd grade may be able to comprehend that which is read to him at a 5th or 6th grade level. This child generally does a great deal of compensating for his reading problem by tuning in to the verbal part of the classroom instruction or by asking his friends to summarize various reading assignments. If children are weak in listening skills we need to be aware of this so that we will not be depending on their auditory channel for much of the instruction.

ADMINISTRATION

Before giving the IRI you should have given the Word Recognition subtest of the WRAT. It is the child's grade level score on the Word Recognition subtest that determines which graded paragraph from the IRI the child should start on. Generally speaking, you should start the child reading in the IRI about two grade levels below his/her WRAT word recognition grade score. The reason for this is to have the child be comfortable, relaxed and feel successful before attempting the more challenging selections. Unfortunately, not all children will be able to begin at a success level because of their poor word recognition skills.

Although comprehension is our main concern on the IRI, we also want to gain more information about the child's word attack skills. Therefore, we must take good notes on the word errors the child makes. There is a suggested marking system on page xiii of your Silvaroli Manual. To keep our interpretations uniform, we recommend you use this system. In addition to this system be sure to indicate how the child went about unlocking the words, i.e. phonics, linguistic, whole word, etc. An example of your copy may look like the following:



MOTIVATION: All the family drove to the airport to see father off on a plane trip. Read to find out what the children are looking at.

THE ~~WORK~~ WALK CAR

"Look over ~~there~~ here," said Jane.

"See the funny little car.

Can you see ~~it~~ ME."

"I see it," said Bob.

"~~It is~~ it's a work car."

COMPREHENSION CHECK

(F) 1. + Who are the children in the story?
(Bob and Jane)

(F) 2. + What did they see?
(funny little car)

(I) 3. − Who saw the car first?
~~(Jane)~~ Bob

(F) 4. + What is the car called?
(Work car or help car)

(I) 5. + What does the work car do?
(Helps or carries baggage, etc.)

Scoring Guide: Pre-Primer

WR Errors		COMP Errors	
IND	0	IND	0-1
INST	1-2	INST	1½-2
FRUST	3+	FRUST	2½+

In this sample taken from the Silvaroli Reading Inventory Test, the child made five word recognition errors. Technically this would place him/her at a frustration level. However, the errors did not interfere with comprehension. It is crucial that we examine the child's word recognition errors and ask ourselves how much they affect the child's comprehension.

Other information we can gain by looking at the example is that the child may have difficulty with inference type questions. Also we have learned some additional information regarding method of word attack. The errors "walk" for "work" and "here" for "there" indicate the child may be a whole word reader because the errors are based on the length and configuration of the words. Some support for the hypothesis that the child may also use context clues in reading is provided by his substitution of "me" for "it" and "here" for "there". ("here" for "there" in this paragraph reading could indicate either whole word or context.)

Because this is an informal reading inventory you are not tied to specific wordings for the questions. If the child is having difficulty with a question you may reword it or even give some assistance. You are also free to grant the child full credit or partial credit for responses. Once again, your observations and feelings about the child's performance should be recorded in the margin of the teachers' worksheet. This will come in handy at a later date when you may be reviewing the child's work.

The Informal Reading Inventory is not the only way of assessing a child's reading comprehension skills. However, we think you will find it a very quick and effective diagnostic tool. Chances are you will find yourself administering the Silvaroli IRI to many of your students, poor readers as well as good readers, just to determine what their different reading levels and skills really are.

METHODS OF WORD ATTACK

It was not until my senior year in college when I was enrolled in a reading class that I found there was a way to read other than the "look-say" method. During this three hour course I learned about the phonic approach to reading. Up until that point I was unaware that you could take a word and break it down according to sounds. For the first time, I began learning about digraphs, dipthongs and syllabication. It may have been that I was exposed to some of this as a child in the public school but I didn't use or remember any of it. For other students in the class, it was the first time they had ever heard of a method of reading other than phonics. It was at this point that I realized there was a correlation in the way you were taught to read and whether or not your schooling took place in the late forties or early sixties. Today the predominant method of word attack being taught in the primary grades seems to be phonics. At other points in time it was the look say or whole word method such as those used in The Dick and Jane readers. Upon graduating from college with a B.A. in education, my certificate indicated that I was qualified to go out into the schools and teach reading because I had taken the required three hour class in reading. It didn't take me long to realize I needed more information, especially to work with those students who were functioning below grade level and were not learning to read the way it was being taught. A class in diagnostic and remedial techniques in reading introduced me to the process of evaluating children with reading problems. It was at this time that I learned the "traditional method" for diagnosing reading.

One of the first steps in the traditional method was to give a reading test to determine at what grade level the student was functioning and then to determine those phonics skills known and those not known. The child's performance on recognizing a basic sight vocabulary was also tested. At the end of the evaluation the clinician knew the following:

- the students reading level
- the level at which he/she could recognize sight words
- phonics skills known and not known

The next step was to check and see whether or not the classroom reading material was appropriate for the child's ability and if he was selecting books that were at his reading level. After the information was gathered the clinician would set up a program to:

- teach at the student's reading level
- teach those phonics skills not known
- teach sight words not known
- select books that were motivating

This traditional diagnostic reading method has been used and is still used by reading specialists and clinicians today. What we would like to do now is go a step further into the process of evaluating for reading problems. We are going to look at the process involved in reading, i.e. how do people read, what do they look for when they read, and what method of word attack do they use. In the following chapters we are going to be examining the perceptual and memory processes and how they relate to the process of reading. In the Differential Diagnostic Manual, Dr. Bonnie Young talks about the assumptions underlying the diagnostic strategy if a child is having difficulty learning to read:

> "He may be using a method of word attack which is not the same that is being used in his basal reader, or is not the same method taught by his teacher.
>
> Different methods of word attack require different perceptual and memory skills. The child may be using a method of word attack which requires perceptual or memory skills that he doesn't have.
>
> Different methods of word attack require different social and interaction skills. The child may be using a method of word attack which requires social and interaction skills which the child has not mastered."

As we read through the literature we find that there is more than one method of word attack. Some children who are labeled as poor readers may never have developed a particular method for attacking words. Others may have been exposed to several methods by their regular classroom teacher but may not have enough instruction in that one particular method to allow it to work for them. Still other disabled readers may have been taught using the same word attack method year after year, only to find failure because they were not exposed to other methods. As teachers, we need to be flexible enough to adjust to a child's needs. If we start a child in a word attack method and find he is not successful and fails to respond correctly, then we must be prepared to switch to another method. But what approach? I am going to be talking about four different word attack methods we have found that are used by both good and poor readers. Just knowing what method of word attack a person uses helps in diagnosing the reading problem. Someone may be trying to use a word attack method but lack the perceptual skills to handle that particular method. There are students who are being taught to attack words one way but are in actuality using an entirely different approach. After knowing what word attack method a child is using the teacher can then start examining the child's skills to determine the best method in relation to the child's strengths and weaknesses. The four word attack methods to be discussed are:

Phonic
Whole Word
Linguistic (Word Families)
Context Clues

To introduce these methods, we may do well to set a conceptual framework to begin with. Two terms which you may have come across in your readings and that are discussed in texts related to reading are the analytic and synthetic approach.

SYNTHETIC

The synthetic approach says that we learn by taking bits and pieces of information and putting them together to make a whole. Teachers who use this approach to reading usually have children tell letter-sounds and then teach them how to combine these sounds into words. The proponents of this approach feel it is structured, sequential and comprehensive.

ANALYTIC

On the other side of the pendulum we have those who feel we learn best by first taking a look at the "whole" and then analyzing the individual parts. In relationship to reading the analytic approach would begin with words the child is familiar with by sight.

As you begin to look at these two theories, try to see yourself in relation to how you learn, what approach best fits your learning style, and which of the two approaches you tend to use to teach. As a teacher you need to first look at the child's needs and what will be best for him. There are those children who are quite comfortable with learning individual parts of a word and then putting them together to make sense out of it and there is the young child who may need the language experience approach and learns through the whole, or Gestalt.

A lot of what we feel is important as teachers. Our philosophy and training may depend on how we use these approaches. It makes sense to be aware of each method and to use the one which fits the child and your particular situation. But enough rambling. Now on to the word attack methods; see how these theories fit.

PHONIC APPROACH

In the phonic word attack method, readers are taught letter sounds and combinations of sounds which are then blended together to make words. The process of attacking an unknown word using this approach would be as follows:

- first the student would sound out each letter or combination of letter sounds.
- next the student blends these sounds together.
- after the sounds have been blended together and the student realizes the sounds make a word he will say the word.

For example, take the word bat. First the reader would say the individual sounds b - a - t, then he would blend them together to make the word. The longer the word, the more sounding and blending is needed. Take the word elephant e-l-e-ph-a-n-t = elephant. The reader does not know the word until he has blended the last sound. This is his cue to what the word is.

As you observe the phonic reader, he will try to sound out words either orally or silently. Without a full knowledge of the phonic rules it can be difficult for him to be successful using this method of word attack.

In observing the phonic reader, it can be seen that there are certain abilities and personality characteristics needed to be proficient. Following is a chart showing the various abilities needed to learn through the phonics method.

* PHONICS. A chart showing the various abilities necessary in order to read via the phonics method.

Learning Abilities	Personality Characteristics	Reading Skills Hierarchy	Processes	Language Skills
. Visual attending . Auditory attending . Auditory discrimination . Auditory sequential memory for 3-8 sounds . Auditory closure . Auditory blending	. Ability to make alternative choices (divergent thinking) . Patience in sounding out and blending . Secure enough to accept failure (guess)	. Letter Names . Letter Sounds Consonants Short Vowels Long Vowels Blends Digraphs Diphthongs "r" controlled vowels . Blending . Rules and rule application(Example:) Final "e" rule Two vowels	. Monitor the sounds - do they make a word? . Retrieve . Guess . Track . Express verbal output . Recognize when words are not soundable . Recognize that some letters have a number of sounds	. Oral vocabulary Receptive Expressive . Concepts . Articulation

*From: The Differential Diagnostic and Prescription - Learning Disabilities, Oregon College of Education, Monmouth, Oregon 97361

WHOLE WORD APPROACH

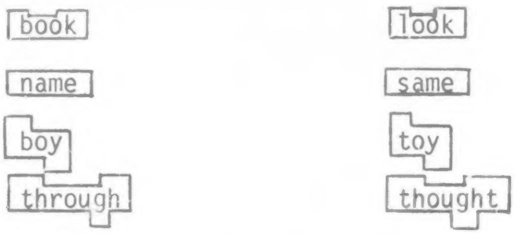
The "whole word" or what is sometimes called the "look-say" method of word attack has been with us for many years. When I was in elementary school during the late forties and early fifties I can remember learning to read from the Dick and Jane readers. In this method the reader learns to read by recognizing the whole word. This approach seems to work well for learning words rapidly but as the reader begins to come across more and more words he may need something else to help him analyze or attack words.

The whole word reader will usually recognize a word instantly upon seeing it. If he comes across a word he does not know he may skip over it, or just say he doesn't know it. In Dr. Bonnie Young's discussion of the whole word reader, she indicates that children who are of high intellect will teach themselves to read using this method whether it is the method they have been exposed to in school or not. I have observed many pre school children, including my five year old daughter, using this method of learning to read. Those of us who have good visual memory can remember words quite well after someone tells us what the word is. It took only a few times for my daughter to recognize the word stop after seeing it on a sign and asking me what it said. Many children and adults learn to read words in this manner. The true whole word reader may have no phonics skills whatsoever other than knowing the initial consonant sounds.

A common error made by the whole word readers is that of confusion in configuration of a word. They may confuse the outer or inner configuration of a word. The reader will be looking for letters that stick up or hang down. Reading errors may look like this:

"book"	for look
"little"	for letter
"black"	for block

Mistakes will be made in relationship to how the words are formed. If there is a similar configuration he may substitute a word that looks the same, or very similar.



When the whole word reader comes to a word he does not know he may skip over it, say "I don't know" or ask someone to tell him what the word is. Usually he is unable to sound it out. There are instances where students have been exposed to phonics and use these skills on isolated words. But when it comes to paragraph reading, they rely on the whole word approach. Following are the various components needed to read by this method.

*WHOLE WORD. A chart showing the various components necessary in order to read via the whole word method.

Learning Abilities	Personality Characteristics	Reading Skills Heirarchy	Processes	Language Skills
. Visual attention . Visual figure-ground . Visual memory for one word . Visual discrimination . Visual sequential memory	. Able to delay guessing until he looks at all the letters . Generate alternative word . Tolerance for material of high repetition . Able to ask someone what the word is	. Eye-span for two inches . Recognition of sight words . Knowledge of letter names . Knowledge of initial consonants . Knowledge of structural analysis .Roots .Prefixes .Suffixes .Syllabication . Dictionary Skills	. Recognition of outer configuration* . Recognition of inner configuration . Association with a picture . Able to process several variables at one time . Verbal output . Monitor - Is it a whole word? .height of letter above or below line* .shape of letters .spaces within letters .spaces surrounding the lines of the letters	. Oral vocabulary receptive expressive

*From: The Differential Diagnostic and Prescription - Learning Disabilities, Oregon College of Education, Monmouth, Oregon 97361

WORD FAMILIES

The teaching of word families has been successful for many children who have reading problems. This is the practice of looking for little words in big words. In this approach attention is given to clusters of words which make up a phonogram. These phonograms are usually consistent from one word to another. A person who uses this approach will look for units or word families within a word which helps him break the word into larger units to sound out rather than individual sounding of letters. The student who cannot remember a sequence of individual sounds may be able to handle this approach. Examples of word families may include:

eak → seak

at → cat

anch → branch

op → top

In this approach the child would first pronounce the word family or unit and then sound out the other letters which make up the word. Remember that in the phonic approach the individual letters are sounded out in sequence then blended into a word. In the linguistic approach the word family is pronounced, then the other letters are sounded and blended into a word. The child visually attends to clusters of letters within a word which tend to have similar sounds from one word to another. There are several reading series which use this approach to teaching reading and in most cases are used for the reading disabled child. Following are the components needed in order to read via the linguistic approach.

*LINGUISTICS. (WORD FAMILIES). A Chart showing the various components necessary in order to read via the linguistic (word families) method.

Learning Abilities	Personality Characteristics	Reading Skills	Processes	Language Skills
. Auditory attending . Auditory memory (for two or three phonemes) . Visual attending . Visual memory (for two or three units)	. Tolerance for non-meaningful material . Tolerance for pattern repetition	. Initial consonants . Consonant blends . Diphthongs . Word family units (i.e.) in at op ut . Rhyming	. Recognition of a pattern . Monitor - is it a word? . Express - verbal output . Recognition of several symbols as a single unit of sound	. Oral vocabulary receptive expressive . Concepts group or unit first, middle, or last.

*From: The Differential Diagnostic and Prescription - Learning Disabilities, Oregon College of Education, Monmouth, Oregon 97361

CONTEXT CLUES

According to Ekwall the use of context clues is one of the most important word attack skills a student can possess. The context clue reader is seldom a beginning reader. In this approach to reading the child may read up to an unfamiliar word, possibly sound the first letter and then begin using cues from what he has already read to help unlock the word. Some context clue readers may skip over an unknown word only to return later after more of the selection has been read and correctly pronounce it. The context reader seldom reads isolated words well because there is nothing to clue him on unfamiliar words. As you observe this reader his eyes may skim over the pages looking for any kind of clue to help give meaning to what is being read. A book with pictures that do not relate to the story are very confusing for this reader.

A bright child who cannot be bothered with sounding out words and who has a good knowledge of words will often use this approach. This child may do much better if he is asked to read silently versus reading orally. He may omit words and have poor fluency in oral reading but still have good comprehension. As Dr. Young indicates, the context clue reader's word errors may be within the same category or classification. He may say the word house for home, kitty for cat, automobile for car. In these instances he is not changing the meaning and the substitutions do not detract from the story. Because of his ability to use context, he will usually score higher on paragraph reading than on a word list.

Most proficient readers use the context clue approach to reading along with other word attack methods. The true context reader does not rely on other forms of word attack. Many of these readers do not have the faintest idea of how to attack words phonically. The context reader may do poorly in spelling unless he has a good visual memory.

Many children who are diagnosed as being context clue readers have been in phonics programs in school and are familiar with the rules for attacking words but once they get into paragraph reading never seem to use the phonics skills for reading approach.

As you observe the child working through the reading process keep in mind that the method of word attack used on isolated words may not be the preferred approach used in paragraph reading. Also a child may score at a much higher level in paragraph reading than on an isolated word list and vice versa. As you begin to look at the different methods of word attack that children use keep in mind that the child does not always rely only on one method. He may use some of the whole word approach along with a lot of phonics or vice versa. What we want to look at is whether or not the method he prefers to use, the one he mostly relies on, is appropriate for his learning style. Does the child have the perceptual skills to be able to use that particular method of word attack. Some children work year after year trying to learn to read by phonics only to find they have poor auditory sequential memory along with inadequate auditory blending ability. Other rely strictly on a sight word approach and lack good visual memory skills. The good reader uses all or several of these approaches when reading. There are many learning disabled children who can not handle certain word attack methods and as teachers we need to understand the methods and approach used, and the perceptual skills involved and how to diagnose whether or not a child has the perceptual abilities to handle a particular method of word attack. The next three chapters will take you through the process we use for evaluating children's perceptual abilities.

We will be determining how children learn best and what their particular strengths and weaknesses and modality preferences are.

FIVE

LOOKING AT LEARNING MODALITIES AND HOW CHILDREN LEARN

LEARNING MODALITIES

In this chapter we will discuss ways in which the classroom teacher can determine how the children in class learn. The focus of this chapter will not be on "what" they learn, or "how fast" they learn, but on how they learn. As you present information to your class, each member of the class must in some way process that information so it becomes meaningful. In other words the child "does something" to the information presented in order to learn it. Knowledge of what the child does can do much to help a teacher reach the children in his or her class. If you discover that a particular child who has had difficulty grasping certain instructions needs only to have that instruction presented differently, you can avoid some of the logistical problems of referral, evaluation, and so on. The child is also spared being thought of as a learning disabled child.

As a classroom teacher you have undoubtedly had children who, for one reason or another, have not progressed or behaved as they should. And, while you may have had access to the variety of specialists abundant in many districts, the responsibility for the day-to-day teaching of these atypical children seems to come right back to you. The purpose of this manual is to help you reach those atypical students and to do so with a minimum of extra time and involvement. It is the opinion of those involved in producing this manual that the classroom teacher is in the best position to observe the atypical child, consider various reasons why the child may be atypical, and initiate activities that will bring the child more into the mainstream of the classroom.

The first step in the observation and diagnostic/prescriptive process should be the realization that you, the classroom teacher, know more about the child than anyone else except the parents. You have the child in your class daily and are able to observe him under the widest variety of conditions. Your experience with other children is invaluable in considering the atypical child. You have had (usually) more contact with the parents than other school personnel; and you are the person aware of the resources available to you in your classroom and school. With all these things going for you it seems only natural that you should play the major role in attempting to meet the needs of the atypical child in your classroom.

SOME ASSUMPTIONS

If you have read this far it is possible that you have, or anticipate having, an atypical child in your classroom. The availability of resource personnel may be limited or the personnel available may not be in a position to help you with this particular child. You are no doubt aware of the recent legal issues surrounding the handicapped child and public education. And finally, as a teacher you feel it is your obligation to reach as many children as possible as effectively as possible.

A WAY TO VIEW THE CHILD

In the 1930's the German psychologist Kurt Lewin presented a paradigm which seems quite applicable to viewing the atypical child in the classroom: B=f(p,E)--Behavior is a function of the person and the environment. The implications of this paradigm are important. It suggests that the individual (in this case the atypical child) exists in the context of his environment and that whatever behaviors the individual exhibits are a product of the interaction of the individual and his environment.

Taking the view, then, that behavior is produced by the interaction of the individual and his environment, the causes of an atypical child's behavior in the classroom may be seen as 1.) residing within the child in question, 2.) residing within the child's environment, or 3.) residing in the interaction of the child with the environment.

1. The problem resides within the child.

In this instance there is some dysfunction within the child's physiological or neurological systems that precludes adequate functioning. It may be that the child has a learning disability, for example, which does not permit the child to adequately perceive visual images. Perhaps this particular child sees only mirror images of letters, or perhaps this child cannot hear the subtle differences between similar sounds. These conditions could be thought of as learning disabilities and in this case the problem lies within the child.

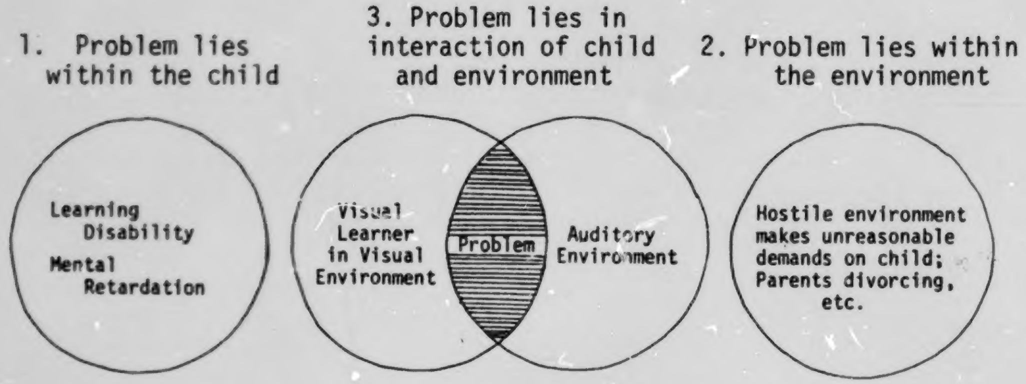
2. The problem resides within the child's environment.

In this instance the child is "whole", that is there is nothing physiologically, or neurologically wrong with the child. The reason the child cannot function adequately in school has nothing to do with the child but has everything to do with the child's environment. Perhaps the child's parents are divorcing and the child fears for his security. Perhaps the environment makes so many unreasonable demands of him that he can no longer function. In these instances it is the environment, not the child, that is the source of the academic or behavioral problem.

3. The problem resides in the interaction of the child and the environment.

In this instance the child may be "vulnerable", that is he is able to perform adequately as long as he is in an appropriate environment. If, however, the environment is altered or the child moves to a new situation and the resultant environment differs from the appropriate one, the child may no longer be able to function adequately. An example of this might be the child who learns effectively through visual means. This child functions well as long as there is some visual stimuli in the environment. Suppose that this child is moved to a new environment which has little visual stimulation but a great deal of auditory stimulation. The lack of visual input may cause the child to do less well in the new situation.

The following diagram illustrates this conceptual framework for viewing the child:


1. Problem lies within the child
3. Problem lies in interaction of child and environment
2. Problem lies within the environment
Learning Disability
Mental Retardation
Visual Learner in Visual Environment
Problem
Auditory Environment
Hostile environment makes unreasonable demands on child; Parents divorcing, etc.

There is no one better qualified than the classroom teacher to make these observations. The classroom teacher sees the child 5 days a week under a variety of educational and social circumstances. The classroom teacher has the advantage of comparing how different children in class approach a similar task; how different children respond to certain types of instruction. Finally, it is the classroom teacher who must work with the child for the greatest part of the day so it makes sense that the teacher be the person observing, evaluating, manipulating the environment, and re-evaluating how the child responds. In this chapter we will be discussing diagnosis beyond the level of skills; we will be discussing ways to determine how a child processes information, and how that will affect his or her learning in your classroom.

LEARNING MODALITIES

The learning modalities to be discussed are auditory (hearing and the auditory processing skills); visual (sight and the visual processing skills); kinesthetic (sensation of movement through muscles, nerves, joints, etc.); and a combination of these. Tactile, referring to the sense of touch, is not included here as a modality since it's almost impossible to use a kinesthetic approach without simultaneously using a tactile one.

Most students ultimately develop a method of learning that works best for them. Through a trial and error process and through experience a child can learn what he or she must do in order to learn effectively. For some this means visualizing the information they receive; for others it means saying it aloud or whispering it in order to process it; for still others it means writing the information on paper. As a classroom teacher you can observe your students and begin to get some idea as to how they process information.

It is obvious that there are no sharp, clear divisions between modalities. Reading instruction is not solely a visual approach or an auditory approach as one must in some way integrate the visual symbols (letters) with their spoken counterparts (sounds) to form words. Nevertheless, the mode of presentation -

phonics, flash cards, etc. - may not determine what modality this child uses in actually processing the information. The child who is a visual learner may visualize material despite an auditory presentation. The reverse is also true: a child who learns auditorially may look at a sight word and process it by hearing or saying the word.

CHARACTERISTICS OF LEARNERS WITH A PREFERRED MODALITY

There are some children who have developed a preference for learning through one modality, or a combination of modalities. Usually these children exhibit certain behavioral characteristics which permit the teacher to identify them. Some of the components of these perceptual modalities and characteristic behaviors are as follows:

Auditory Perceptual Skills:

1. Awareness - can determine if sounds are present.
2. Discrimination - can distinguish variations in intensity, pitch sounds, and words.
3. Memory - recall a series of digits, words, or sentences.
4. Figure ground - can select and attend to appropriate auditory input from diverse background noise.
5. Blending - can synthesize component sounds into syllables or words.

-From Wallace & Larsen, 1978

CHARACTERISTICS OF AN AUDITORY—EFFECTIVE LEARNER

- His/her attention to visual tasks may be poor.
- He/she attends more to the sound than to the screen during films shown in class.
- His/her drawing or other artwork is poor, and he/she doesn't enjoy art activities.
- Work he/she copies from the board may often turn out poorly.
- He/she might prefer word games, riddles, and noisy or active toys and games to more visually oriented games like checkers, other board games, or jigsaw or crossword puzzles.
- He/she may do poorly on written spelling work, but he/she may be a better speller in spelling "bees".
- He/she may not remember much of what has been read, and he/she does better on material discussed in class.
- His/her comprehension is probably better on oral reading than on silent reading.
- His/her math errors, carefully analyzed, may show consistent patterns: inattention to signs, confusion of similar numerals, etc.

- He/she may do poorly on sight words and flashcard drills.

- He/she probably dislikes "ditto" activities, but given the chance, will sort through a stack of dittos for the clearest copy.

- He/she may enjoy memory work.

- He/she may be a "mumbler", muttering or whispering during silent reading or other quiet seat work. He/she may also whistle or hum without being aware of it, rather than "doodling" on scratch paper.

- Usually, his/her spelling errors "make sense" in that the child spells the word the way it sounds; meen for mean, etc.

VISUAL PERCEPTUAL SKILLS

1. Discrimination - noting differences and similarities among shapes, letters, and words.
2. Spatial relationship - determination of the portions of objects in space.
3. Visual-Motor Integration - integration of perceived visual stimuli with movements of body parts.
4. Visual figure-ground - focusing on selected figures and screening out irrelevant background stimuli.
5. Memory - recall of a sequence of visual stimuli or of the primary features of one stimulus.
6. Closure - identification of a figure when only fragments are presented.

-From Wallace and Larsen, 1978

CHARACTERISTICS OF A VISUAL—EFFECTIVE LEARNER

- He/she may seem to ignore verbal directions.

- Questions or instructions must often be repeated, frequently in different words.

- He/she may frequently have a "blank" expression on his face, or may seem to daydream during classes which are primarily verbal.

- He/she may watch the teacher's lips closely, and may be distressed when he cannot see her face, such as when she is talking while writing on the blackboard or discussing a filmstrip in a darkened room.

- He/she may look to see what everyone else is doing before following instructions.

- He/she may have trouble discriminating similar words or sounds: Bill, bell, bull, and ball may all sound the same to him/her.

- He/she may do poorly in phonics-based activities.
- He/she often can't remember information given verbally.
- He/she may describe things in terms of visual stimuli, and omit auditory descriptive material.
- He/she may prefer visual games, such as board games, or active games and toys, to those which involve listening or speaking.
- He/she may do better work when he/she is to do what is demonstrated, rather than told to him verbally.
- He/she may be unable to explain in words many complex tasks he is able to do, such as repairing his/her bicycle, taking apart a clock, etc.
- Makes errors in reading based on the length and configuration of the word or context clues. For example:

sees:	says:
father	daddy
laugh	funny
cat	eat
block	black

KINESTHETIC — TACTILE PERCEPTION

This modality refers to input that is received through touch and movement. It is generally not considered a primary modality in a learning situation; usually it is combined with aspects of the visual and/or auditory modalities. Approaches such VAKT, Fernald, and Slingerland are examples of this integration of modalities. All have in common the seeing and hearing of a stimulus, saying the stimulus, and some type of motor and tactile involvement such as tracing.

SOME RESEARCH FINDINGS

Ekwall (1976) quotes a study by the Socony Vacuum Oil Company on how learning and retention are affected by the use of various modalities and combinations of modalities. The results were summarized as follows:

Students Retain:

1. 10% of what they read.
2. 20% of what they hear.
3. 30% of what they see.
4. 50% of what they see and hear.
5. 70% of what they say as they talk.
6. 90% of what they say as they do a thing.

From this it seems there are implications for the way to teach children effectively. Decker (1965), quoted in Ekwall (1976), summarized findings on effective teaching presentations.

1. Combinations of visual and auditory presentations seem more effective than those using only a visual or auditory presentation.

2. When the learner is familiar with the material he is likely to retain more from an auditory presentation. If the material is unfamiliar, he is likely to retain more from a visual presentation.

3. Students with higher intelligence seem to benefit more from a visual presentation.

4. Students who read better seem to learn better through a visual presentation.

5. As students grow older they tend to learn better through a visual presentation. At the age of six they learn better as a group through an aural presentation; however, by the time they reach sixteen years of age they learn better as a group through a visual presentation.

6. More difficult material seems to be learned better through a visual presentation while easier material is learned better through an auditory presentation.

7. Students' immediate comprehension of information seems to favor a visual presentation while their long-term comprehension seems to favor an auditory presentation.

8. The efficiency of a visual presentation seems to decrease as the interval of delayed recall increases.

9. One of the advantages of a visual presentation is the relative referability or opportunity for review of the material. When the material is of such a nature that less referability is possible, the efficiency of a visual presentation is lessened.

10. Material that is well-organized or follows some type of sequence such as factual information or prose is better understood with an auditory presentation. Material that is more discrete and unrelated is better understood with a visual presentation.

11. One might consider two factors in considering a visual versus an oral presentation. These factors are ease of learning versus amount of retention. A visual presentation tends to favor ease of learning while retention seems to favor an oral presentation.

DIAGNOSTIC CONSIDERATIONS

As you consider the above information and perhaps compare children of your experience (perhaps even examine how you have learned) it is likely that there will be some children who will appear to have a preferred modality for learning. It may be that they have discovered they learn best through a particular modality or it may be that a particular modality is their only intact learning channel. Referring back to the conceptual framework then, if we discover that a child is an auditory learner and find that he or she is in a visual environment, we may have done much to identify the cause of the child's poor academic performance. By examining the interaction of the child and the environment we can often identify how to change the environment to make it more responsive to the student.

DIAGNOSIS

In attempting to determine the child's preferred and/or most effective learning modality the teacher cannot rely solely on test scores and performances. The teacher must draw on his or her experience with children; knowledge of the medical, social, and familial history of the child; and knowledge of the child's educational environment. In making such a determination the following factors should be considered:

- The child's medical history, especially pregnancy and birth; any incidence of high fever or head injury.
- Developmental history - particularly the relative rates of growth of language and motor skills.
- Family dynamics. Is the family verbal or non-verbal? Do they value education? Is the family physically active? Does the family read and encourage the child to read?, etc.
- The child's interests and attitudes toward learning and school.
- The type of materials and instruction used in the school: are reading materials auditory (phonic) or visual (sight words)?
- Does the school use learning centers with audio/visual equipment?
- Does the school require much seatwork and relatively little physical activity?

Along with the information you gather from your informal observations of the child you will also receive information from tests you will give or from scores of tests given by others. Frequently strengths and weaknesses will show up in the test scores and thus can also suggest a student's preferred learning modality.

A Visual-Effective learner may do well on these measures:

- Detroit Visual Attention Span Test
- Picture Completion, Block Design, and Object Assembly subtests of the Revised Wechsler Intelligence Scale for Children (WISC-R)
- Gender Gestalt Test
- Beery-Buktenica Developmental Test of Visual Motor Integration
- Raven Coloured Progressive Matrices
- Benton Visual Retention Test

An Auditory-Effective learner may do well on these measures:

- Detroit Auditory Attention Span Test
- Wepman Auditory Discrimination Test
- Spencer Memory for Sentences Test
- Digit Span subtest of the WISC-R
- Auditory Sequential Memory Subtest of the ITPA

It is also possible that a student who demonstrates strengths in a certain modality may prefer to learn through a weaker one. Thus the classroom teacher again assumes paramount importance as he or she is the one who spends the greatest amount of time with the student, and is in the best position to view the child as he/she interacts with the environment.

Determining a child's learning modality requires a knowledge of the child, his history, his social environment, his academic environment, and what skills the child possesses. The teacher must use all available data and then exercise his or her best judgment to determine what the preferred modality is, what the strongest modality appears to be, and what recommendations to make based on those judgments. There is really no specific approach other than gathering as complete data as possible, drawing on previous experience, and exercising good judgment.

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SIX

AUDITORY PERCEPTUAL AND LANGUAGE FACTORS IN LEARNING

Language is a dynamic process that changes and develops throughout a persons life. Although it's form will be influenced by the individual's particular abilities, disabilities, and environments, language is the essential and unique characteristic of man by which he draws meaning from and attaches meaning to his existence and provides the foundation for communication.

It has been hypothesized that man spends 90% of his wakeful life communicating with others--using language. The importance of language to men - to his ability to relate to and interact with his environment obviates this discussion of its relationship to learning and learning disabilities.

This section, designed to share with you some of the pertinent concepts about language and auditory factors and how they relate to Learning Disabilities will be presented in 4 parts.

The first part will discuss some general concepts about language - the skills, components and processes involved in its development. Hearing as a pre-requisite to the development of verbal language will be addressed in the second section. Here specific physical aspects of auditory factors that relate to Language development and how these are assessed will be discussed. The third part will discuss auditory processes such as memory, discrimination, closure, synthesis and others that appear to be essential to the acquisition of verbal language and reading skills. A brief reference to measures and techniques appropriate for assessing each of these processes accompany the discussions. The fourth and last part will identify more specifically some of the Receptive and Expressive and Inner language factors which appear to relate to Language, and reading and academic success.

LANGUAGE- A CONCEPTUAL REFERENCE

What is Language? Our immediate, intuitive definition of language is that it is the process by which people share their thoughts and ideas with other people. While we commonly think of Language as verbal communication, i.e. people speaking to one another, language can be non-verbal, verbal or both. That is, our thoughts and ideas can be shared through facial expressions, gestures, graphics (writing or art) speaking or combinations of these and other various means of communication. So technically language can be defined as the symbolic representation of experience - real or imagined.

While the most common forms of representing experience are via the skills involved in Listening, Speaking, Reading and Writing (frequently referred to as the Language Skill Hierarchy), and involve the auditory and visual (and tactile-kinesthetic) sensory systems, language may involve only one or two of these systems. Consider the congenitally deaf child whose language (symbolic representation of experience) is predominantly visual and tactile-kinesthetic. The fact that he does not listen or verbally express his thoughts and ideas does not exclude either his capacity for, or use of language. Similarly, the congenitally blind person's language involves only auditory, tactile and kinesthetic senses. It becomes apparent that language encompasses more than our initial intuitive concept of it - as simply speech or verbal communication.

Nevertheless, our communication tends to be auditorily-verbally oriented. As a result, we may tend to judge persons with poor verbal and/or auditory skills, whether these be assessed formally or informally, as language incompetent. Language incompetence may not be the case if the thought, or concept were presented emphasizing a modality other than the auditory and a response other than verbal were acceptable. Since communication (or languages) can assume a predominantly visual or tactile kinesthetic form, as well as auditory-verbal, its development, and the predominant form it assumes, will be influenced by the individual's particular abilities and disabilities as well as his environment.

In working with the child with learning disabilities, it seems important to consider the various forms - verbal and non-verbal - which language assumes. While the above analogies to the deaf or blind child's language may be a bit extreme, it illustrates the importance of considering the individual's particular abilities as well as his particular social and educational environments which affect his development of language.

Frequently children who have difficulty accomodating to classroom instruction do demonstrate inadequate verbal communication skills. They may have difficulties "finding" the word they need to use, they may sequence the sounds of words incorrectly saying "pusghetti" for "spaghetti," use verb tenses or pronouns incorrectly or omit them completely. Observations such as these suggest that these children may be encountering difficulties defining and assimilating the organization of verbal language, yet their language skills, i.e. their symbols representation of experience may appear very efficient and effective if assessed through visual and/or haptic modalities.

The organizational structure communication, whether it be haptically, auditorily or visually oriented is similar and the child who has figured out the organizational structure of language in one modality can often be assisted to use these skills to develop language proficiency in other modalities.

A generalizable condition of language then, is that it is organized and not arbitrary. Because language is organized and not arbitrary, the meaning one person attaches to his existence or experiences can be intelligibly communicated to others. A brief look at the organizational structure of language, its components and processes, may help us better identify how, as well as how effectively, a child organizes his experiences and communicates them to others. What are the components and processes of language?

COMPONENTS OF LANGUAGE

The two essential components of language can be identified as symbols and rules. The symbols provide the tools for representing experience while the rules provide the structure that enable us to communicate particular experiences as well as our thoughts and ideas about them to ourselves and others.

Linguistic symbols may be:

visual - letters, printed words, pictures, gestures, etc.
auditory - speech sounds, spoken words, tunes, etc.
haptic - gestures, facial expressions, etc.

Linguistic rules encompass:

vocabulary - re: the selection of the appropriate symbol to represent an object or experience.

morphology & syntax (grammar) - re: the appropriate use of rules and ordering of the various symbols of language (parts of speech).

semantics - re: the appropriate associations between symbols, rules and situations.

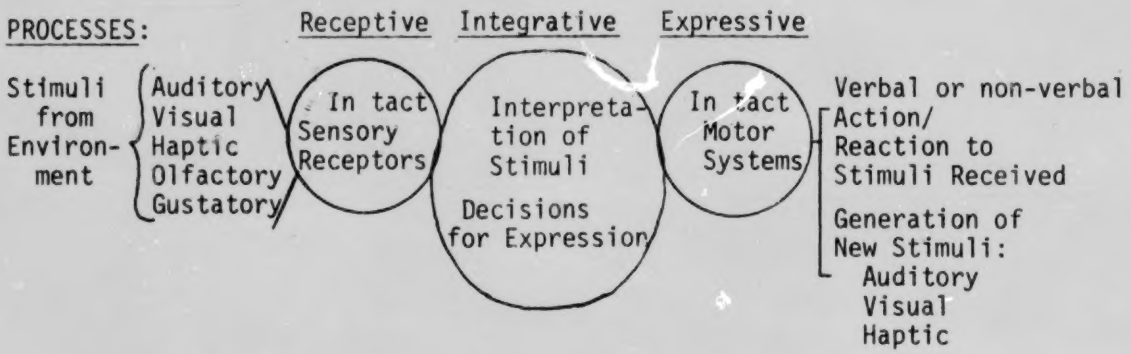
punctuation, intonation, inflection and similar elements within and across the various modalities.

While language is a dynamic process and continues to change and be refined throughout one's lifetime, language competency i.e. skilled use of the components, the symbols and rules of language, is fairly well established by age 12 or before. Thus, we as teachers, have (a minimum of) 6 years during which to effect a profound impact on the language development process.

Most of the school (and other) learning activities involve language. Listening, speaking, reading, writing - whether they be the focus of instruction themselves, or expected skills for instruction in other academic and non-academic areas, - represent the traditional fundamental skill levels of language. The child's ability to deal with the symbols of language and use them appropriately (according to the rules) at these different levels must be a primary concern in any attempt to determine a child's intellectual, academic and personal success potential and the most appropriate educational or instructional program for him.

PROCESSES OF LANGUAGE

How can we best determine a child's language proficiency level? It may be helpful to first consider language in the conceptual framework of a general Communication Process Model (after Osgood, et al)


PROCESSES:
Receptive
Integrative
Expressive
Stimuli from Environment
Auditory
Visual
Haptic
Olfactory
Gustatory
In tact Sensory Receptors
Interpretation of Stimuli
Decisions for Expression
In tact Motor Systems
Verbal or non-verbal Action/ Reaction to Stimuli Received
Generation of New Stimuli:
Auditory
Visual
Haptic

From this model we see that communication involves 3 interrelated processes of Reception, Integration and Expression.

The Receptive Process involves the reception of stimuli by (intact) sensory receptors. The intactness of the receptors - ears, eyes, body (touch/movement) nose, tongue, determines to a large degree the impact of the auditory, visual, haptic (tactile/kinesthetic) olfactory and/or gustatory stimuli presented. Environmental and other individual constitutional factors may determine how efficiently a person discriminates relevant from irrelevant stimuli and thus also contribute to the degree of impact of the sensory stimuli.

The Integrative Process involves the perception or interpretation of the stimuli received by the brain; the decisions necessary for making the appropriate discriminations, associations and identifications to attach or recall meaning to the stimuli. Considering the continuous multi-sensory bombardment of stimuli encountered from the environment, sensory coordination/cooperation is imperative to the efficient functioning of the integrative process.

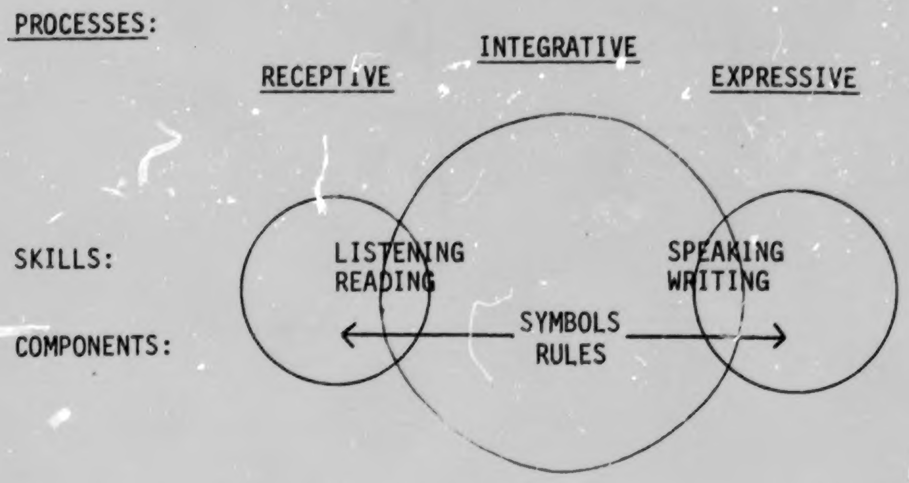
The Expressive Process involves the action or reaction toward the various (external & internal) stimuli encountered. Frequently the result is observable behavior - either verbal or non-verbal and constitutes the generation of new stimuli, to be received, interpreted and acted or reacted on by others.

This sequence of processes, reception-integration-expression comprises a communication model from which we can develop diagnostic and instructional procedures to promote language proficiency.

SUMMARY

"Communication" presumes an organism's interaction with the environment from which and to which he is continually receiving and sending stimuli. If a child has a deficit in one of these areas, he is either unable to receive the information uninterrupted; to recognize and correctly interpret the sensations he receives or to coordinate the sensory-motor mechanisms of expression appropriately which causes a dysfunction in his expression of or ideas about these sensations. Deficits in one or more of these areas has direct implications for the child with a learning disability. If he is unable to identify objects or pictures, to distinguish colors, differentiate forms, recognize tunes, differentiate sounds, recognize words, relate a need, a feeling, or experience, his efficient, appropriate interaction with his environment and thus his learning will be significantly hampered. Identifying what skills and components and processes of language the deficit(s) involves can be facilitated with the assistance of an Audiologist and/or Speech Pathologist (Hearing; Speech and Language Professionals respectively). However, the child's teacher has the greatest access to information about a child's language functioning. Through observations of the child's classroom performance, communication with others and as indicated for other skill areas, simply completing the referral form, some hypotheses about the child's language proficiency or inefficiencies, can be generated.

The Language Skill Hierarchy (Listening, Speaking, Reading and Writing); the components of language (symbols and rules) and the processes of language (receptive, integrative and expressive) have each been briefly discussed. While each of these skills, components and processes are interrelated, it is useful for diagnostic purposes to view their interrelationships through the Communication Process Model as follows:



It must be recognized that it is difficult to completely segregate the processes or components of language, because of the interaction or interrelationships that exist between them. Keeping this in mind we will proceed to our discussion of the processes and components involved in the first and most fundamental of the skills in the Language Hierarchy - Listening.

From the Communication Process Model, it can be seen that Listening involves the processes of Reception and Integration. For listening, both of these processes occur within the auditory system.

PHYSICAL ASPECTS OF AUDITORY FACTORS ANATOMY OF THE EAR

The entire auditory system in humans consists of two major sybsystems. These two subsystems are the peripheral auditory system and the central auditory system. The function of the peripheral system is to receive sounds. (Receptive Process). The role of the central system is to process and interpret these sounds. (Integrative Process).

The peripheral auditory system is composed of many different parts that are generally described as being in three major areas. These areas include the outer ear, the middle ear and the inner ear.

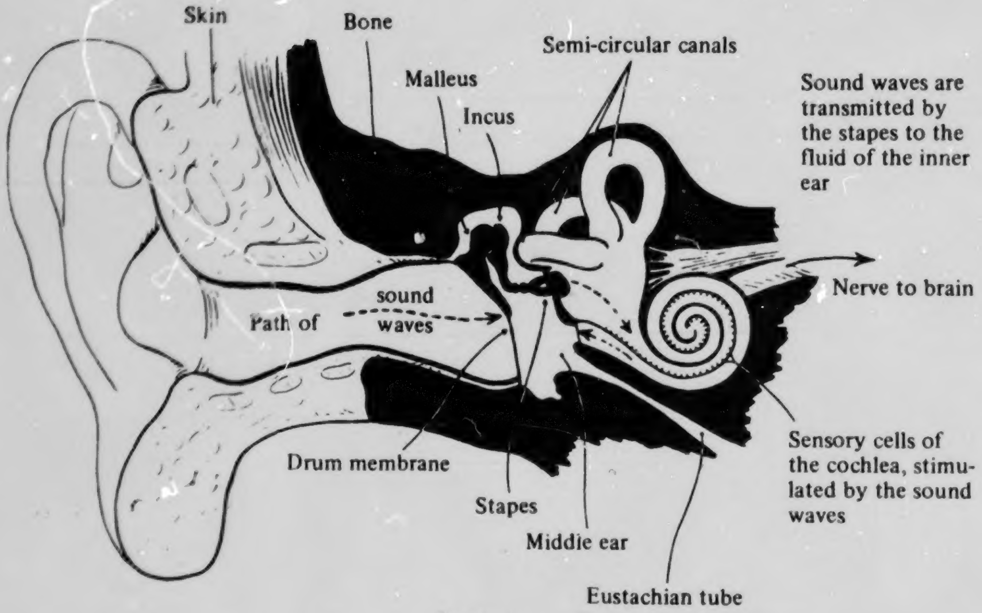

Skin
Bone
Malleus
Incus
Semi-circular canals
Sound waves are transmitted by the stapes to the fluid of the inner ear
Nerve to brain
Path of sound waves
Drum membrane
Stapes
Middle ear
Eustachian tube
Sensory cells of the cochlea, stimulated by the sound waves

Figure 1

THE OUTER EAR: The outer ear consists of the ear itself, (the pinna) and the external auditory canal.

THE MIDDLE EAR: The middle ear consists of the ear drum, the three little bones behind it and the open space in which these bones are contained, the middle ear cavity. These three little bones are extremely important and are often referred to as the ossicles. The individual names for the ossicles are the malleus (hammer), which is attached to the ear drum; the incus (anvil) and the stapes (stirrup). The middle ear is not an air tight compartment. There is a small tube (the Eustacian tube) that leads from the middle ear to the back of the throat. It is through this tube that air is exchanged and a uniform atmospheric pressure is maintained both inside and outside the ear.

THE INNER EAR: The inner ear consists of two parts, the vestibular system and the cochlea. The vestibular system consists of the three semi-circular canals and the beginning of the cochlea. This system is the balance mechanism. The cochlea is a snail-like structure where the sensory cells and nerve fibers are located. It is the sense organ of hearing. When sensory cells within the cochlea are stimulated by sound, the information received is passed along through the auditory nerve, the eighth cranial nerve. The auditory nerve is responsible for transmitting both hearing and balance information to the brain.

HEARING LOSS

When damage occurs in any part of the peripheral auditory system, a hearing loss will occur. The type of hearing loss that occurs is based on where the damage takes place. There are three types of hearing loss that include a conductive hearing loss, a sensori-neural hearing loss and a mixed hearing loss.

Conductive hearing loss: With a conductive hearing loss, the cochlea and nerve fibers are not damaged. There is, however, some problem within the outer or middle ear that is blocking sound from being received by the inner ear. This type of hearing loss is generally treatable by medication or surgery. A conductive hearing loss can be caused by: a plug of ear wax in the external auditory canal; a hole in the ear drum that makes it a less effective vibrator; a break in the ossicular chain; a middle ear infection that causes fluid to collect in the middle ear cavity.

Sensori-neural hearing loss: This type of hearing loss is caused by damage to the sensory cells or nerve fibers of the ear. It is a permanent hearing loss that is not generally correctable by surgery or medication. Some specific causes of a sensori-neural hearing loss are birth defects, head injury, certain medications that are toxic to the ear, exposure to loud noise for an extended period of time, and the aging process.

Mixed hearing loss: The combination of both a sensori-neural and conductive hearing loss constitute a mixed type hearing loss. An example of a mixed loss would involve a child who was born with a sensori-neural loss, due to prenatal reubella who also has an active ear infection that is causing fluid in the middle ear to collect, hence a conductive loss.

HEARING TESTS

The object of a hearing test is to find the faintest sound that can be heard by a person (his threshold) at each frequency or pitch. The equipment used to determine a person's hearing threshold is called an audiometer.

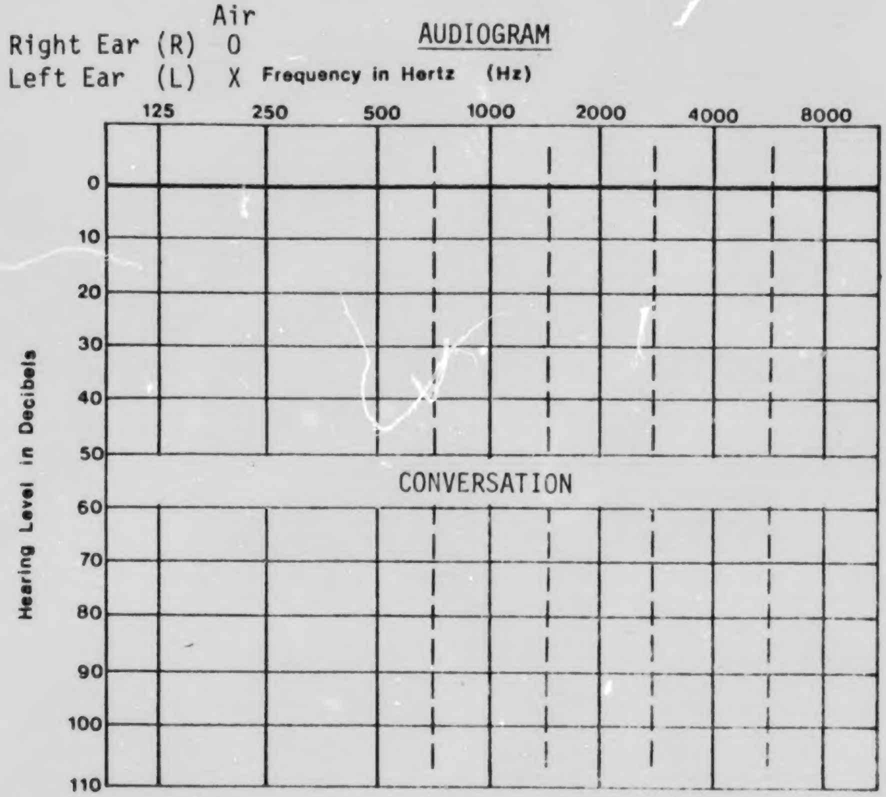
Three methods of hearing testing can be employed using this equipment.

Puretone air conduction threshold testing is probably the most common type used in the schools. This involves the use of headphones that are put over the ears in order for the person to hear tones presented at different pich and loudness levels. This type of testing is designed to test the integrity of the entire auditory system.

Puretone bone conduction testing is also used when a loss is found by puretone air conduction testing. This test involves the use of a bone vibrator that is placed behind the ear on the skull bone. By vibrating the bone, the cochlea is also vibrated since it is housed within the bone. This vibration stimulates the fluids within the cochlea which in turn stimulates the sensory cells that send the message through the auditory nerve. Bone conduction testing bypasses both the outer and middle ears. This test is designed to check the integrity of the inner ear.

The softest sound the average person can hear is 0 decibels. Speech has to be spoken louder than zero decibels for a person to understand it. Conversational speech spoken in a quiet room has a level of around 60 decibels.

The sounds of speech, the consonants and vowels, vary in pitch and loudness.



The Audiogram: This is a chart on which puretone hearing test results are plotted. On the top of the chart, the numbers represent different pitched tones. These tones are measured by their frequency in Hertz (HZ.). 125 Hz., for example, is a very low pitched foghorn-like sound, whereas, the 8000 Hz. tone is a very high, whistle-like sound. This series of sounds is approximately the pitch range that is important for hearing and understanding speech.

On the side of the audiogram are numbers that run from 0 to 110. These represent the loudness of the tone. Loudness, in this case, is measured in decibels (dB). Decibels measure loudness just as inches measure length. A tone at 0 dB is very, very faint. A tone at 110 dB is very, very loud.

Normal hearing is considered to be between 0 - 25 dB in adults at all frequencies. Often for children, the normal range is from 0 to 20 dB. Hearing losses are classified according to the amount of hearing lost, generally as follows:

Mild hearing loss:	Adult 26-40 dB	Child 21-40 dB
Moderate hearing loss:	41-55	
Moderate severe hearing loss:	56-70	
Severe hearing loss:	71-90	
Profound hearing loss:	91→→	

The third method, speech audiometry, is used to check another aspect of hearing - that of understanding what is spoken. When there is damage in the cochlea, certain frequencies will no longer be heard. In a case like this, words will become difficult to understand because the complete word cannot be heard. For example, if there is damage to the cochlea that causes a high frequency hearing loss, sounds such as "s", "p", "h" and "t" will be very hard to pick up. Therefore, words like "his", "hip", and "hit" would be extremely hard to differentiate. In speech audiometry a list of words are presented at a comfortable listening level and repeated by the subject.

Speech Audiometry test results are reported as discrimination scores: the percentage of words the subject discriminated and repeated to the examiner correctly.

AUDITORY PERCEPTUAL FACTORS

The central auditory system has its beginnings beyond the cochlear nuclei in the brain stem. This system is responsible for transmitting auditory information to the brain. Nerve synapses along the way to the brain begin the coding and analyzing of the auditory information in this amazingly complex mechanism.

It is not fully understood exactly what happens to complicated auditory information when it finally reaches the brain. What is known is that the temporal lobe of the brain is the receiving station for the message and that it processes the information in a sequence of increasing complexity. For example, a primary area perceives "sound or no sound." The next area may perceive "low or high" or "loud or soft"; the next may perceive quality relationships that would distinguish a barking dog from a human voice. And only at the highest level does perception of verbal speech occur and become integrated into cognitive processing.

In other words, this central auditory system is the source of our abilities to attend to sounds and remember them, to be aware of the directions from which the sound comes, to be aware of differences in sounds, and of rythmic patterns, to be able to isolate and distinguish sounds from background noises, to repeat sounds, to fuse the sounds coming into two ears into one unified impression and to draw meaning from verbal stimuli. The importance of this system seems obvious.

From an educational point of view, a child must be able to respond to auditory stimuli, organize them and understand their meaning. There are many different but interrelated processes that are involved in these abilities. Five of the most important auditory processes that are needed to learn the language skills of (listening, speaking, reading and writing) are auditory attention; auditory memory; auditory, or more specifically, speech discrimination; auditory closure and auditory synthesis. Brief descriptions of each follow.

AUDITORY ATTENTION:	the ability to selectively attend to various sounds in differing background noises.
AUDITORY MEMORY:	the ability to store and recall auditory material. Factors that influence this are length, complexity and meaningfulness of the message.
AUDITORY DISCRIMINATION:	in speech, it is the ability to distinguish a difference between phonemes (sounds) and between words. It also includes the capacity to hear the beginning, middle and end of a word and to compare these sounds with corresponding parts of other words.
AUDITORY CLOSURE:	the ability to complete or predict the missing part of a word.
AUDITORY SYNTHESIS:	the ability to blend isolated phonemic elements into an understandable word.

All auditory processes are both interrelated and dependent on each other. They are broken apart synthetically only for convenience of instruction. For example, auditory attention is probably a prerequisite for almost any of the other auditory processes. Therefore, they are dependent on this ability to attend or listen selectively. Conversely, if auditory discrimination or memory are lacking, auditory attention will decline because the experience of listening is not rewarding. A person will find it hard to attend to something that he cannot understand or that is too complex to remember.

TESTS OF AUDITORY PERCEPTUAL FACTORS

Evaluating a child's ability in each of these areas is extremely important when he is experiencing difficulty in school, especially with reading. Some suggestions for evaluation tools and techniques follow:

Auditory Attention: The importance of this skill cannot be overlooked. Often a behavioral chart recording a child's lack of following through on directions, types of questions and situations that occur before such questions, can be used to pinpoint his level of attending abilities.

A more specific diagnostic test that can also be used, tests selective auditory attention. That is, it tests the subject's ability to filter out only the information that he wants from all other stimuli. This test is a subtest of the Goldman-Fristoe-Woodcock Auditory Skills Test Battery, called the Auditory Selective Attention Test. This test is designed to give age equivalent scores.

Auditory Memory: One technique of checking the level of short term auditory memory is to ask the subject to repeat a message he has just heard. The message can be a meaningful sentence or a list on nonmeaningful words, syllables, or numbers.

Two examples of tests that use sentences to examine this skill are first, a subtest of Detroit Tests of Learning Aptitude, the Auditory Attention Span for Related Syllables and secondly, the Spencer Sentence Test of Auditory Memory. Both of these tests begin with short, simple sentences that get increasingly longer and more complex. The score is reported as an age equivalent, however, the extent of age norms differs. The Detroit subtest has norms that begin at 3 years, 0 months and continue to 19 years, 0 months. The Spencer is a much shorter test and its norms begin at 4 years, 0 months and continue to 8 years, 6 months.

The Auditory Sequential Memory Test, a subtest of the Illinois Test of Psycholinguistic Abilities, (ITPA) is an example of an instrument that uses lists of digits to examine auditory memory. In this test the subject is asked to repeat increasingly longer sequences of numbers presented at a uniform rate. Again, the scores are reported in an age equivalent form. The norms proceed from 2 years, 0 months to 10 years, 3 months.

Auditory Discrimination: This skill is an especially important prerequisite skill for reading. One simple screening test for this skill is the Wepman Test of Auditory Discrimination. The task for the subject in this test is to listen to two words presented at the same level of intensity and inflection and tell if those two words sound the same or different. Unfortunately, this test does not give specific age equivalent scores but instead, shows the subject to have either adequate or inadequate auditory discrimination ability.

Auditory Closure: This is a very specific skill that is important when learning to read using phonics. Another subtest of the ITPA, the test of Auditory Closure is one means of testing the subject for this skill. As with all subtests of the ITPA, the instructions for the test must be carefully read and administration must be practiced.

In administering the test, a word is presented at a normal speaking rate with some indicated sounds omitted. The task of the subject is to supply the completed word. The norms, given in age equivalents, range from 2 years, 0 months to 10 years, 0 months.

Auditory Synthesis: This is another important skill when learning to read using phonics. Again, a subtest of the ITPA, Sound Blending can be used to check the level of this skill. Successive sounds of words or nonsense words are presented at the rate of two per second with a distinct break between the sounds. The subject is to verbalize the word or nonsense word. Practice in administration of this test is essential. The norms, again in age equivalents, range from 2 years, 4 months to 8 years, 7 months.

While these discussions of hearing and auditory processes have not been inclusive, the factors most frequently related to success in reading and verbal language development have been addressed. Clinical experience shows that children who have trouble hearing and producing or reproducing words of 2 or more syllables display reading and other academic as well as language problems. Hearing acuity and the auditory processes of attention, memory, discrimination, closure and synthesis appear to be the most critical factors related to success in developing the language skills - listening, speaking, reading and writing.

How a child performs on these listening tasks provides some clues about the efficiency of his receptive and integrative communication processes. Additional clues about how efficient a child's language skills are can be provided by looking at how he comprehends and uses the symbol and rule components of language.

RECEPTIVE AND EXPRESSIVE LANGUAGE FACTORS

RECEPTIVE LANGUAGE

Receptive language allows a person to interpret, or attach meaning to objects, pictures, words (spoken & written) and a variety of other sensory stimuli. Good receptive verbal language enables the student to understand words (the auditory symbols of language). Students with receptive problems may not be able to relate spoken (or written) words to the appropriate unit of experience. For example, the student may have difficulty relating the word "bridge" to either the concrete object, the verb concept or both. He may have difficulty following simple verbal commands such as "close the door", "tell Johnny to being his book tomorrow" etc.

The development of adequate receptive verbal language skills is determined to a large degree by the integrity of the auditory system. The acquisition of auditory skills previously discussed (auditory attention, memory discrimination, closure and synthesis) provides the foundation for acquisition and application of linguistic symbols and rules (vocabulary, morphology and syntax, semantics, etc.).

VOCABULARY

Earlier, vocabulary was defined as the selection of the appropriate symbol to represent an object or experience. Acquisition of this skill is one of the most fundamental in language. It may be obvious to state that the larger a person's vocabulary is, the greater potential he acquires for developing and using more complex linguistic symbols and rules appropriately. Thus, receptive vocabulary, or the ability to comprehend words (auditory linguistic symbols) is usually one of the first language skills to be assessed.

ASSESSMENT

An instrument commonly used to assess receptive vocabulary is the Peabody Picture Vocabulary Test (Dunn, 1959). It tests the person's ability to select the appropriate (picture) symbol to represent an object or experience (word). A page with 4 numbered pictures is presented. The examiner names one of the pictures. The subject is asked to point to, or state the number of, the picture named. This can be easily administered to individuals from age 2 years, 6 months to 18 years who are able to hear words, see the drawings and can indicate yes or no in a manner which communicates. While it provides Mental Age, Intelligent Quotient and Percentile norms, literal interpretation of the results indicate a receptive vocabulary age equivalent. Thus if the student is 8 years, 10 months old, his receptive vocabulary age equivalent should be at least equal to his chronological age (8 years, 10 months) in order for us to say that his vocabulary is adequate for understanding verbal language.

The Peabody Picture Vocabulary Test or PPVT assesses an individual's noun, verb, adjective and adverb vocabulary at a very general level. If a deficit is indicated in this area, more in depth assessment of the students particular vocabulary needs will be necessary before a functional instructional program can be developed. However, the PPVT is a useful instrument for helping to determine whether or not the student's observed difficulty in understanding spoken language stems from an inadequate quantity of verbal symbols to represent objects or experiences, or whether his difficulty is due to difficulties with the grammatical-sequential aspects of language.

You may discover that your student has an excellent receptive vocabulary, but still has difficulty understanding spoken language. The next step will then be to determine his understanding of the linguistic rules used to connect these symbols when relating or inquiring about objects or experiences. What is his understanding of the morphological and syntactical rules of verbal language?

MORPHOLOGY AND SYNTAX

Morphology and syntax, although discussed together, differ in their function. A morpheme is generally defined as the smallest meaningful unit of speech. It allows us [illegible] add parts to words to make new words within categories. For example, the suffix "er" allows us to refer to "a man who paints, probably for a living" as a "painter"; to describe something bigger than the bigger one as "biggest". It is interesting to observe morphological development. Most of us can recall children commenting about their observations and being amused by their morphological errors: "Hers feets are dirty; This is more bigger than that; We runned home." etc.

Morphology also involves rules for communicating in reference to the past, present and future, ourselves and others. The use of the appropriate verbs, verb endings, auxillary verbs, pronouns, negatives, interrogatives (who, what, where, when, why) etc. all contribute to intelligibility in communication. Children who have difficulty using these rules adequately will have difficulty learning to read. Children who have difficulty understanding others who do use the rules adequately may have even greater difficulty learning to read - as well as accommodating successfully to the verbal environment of the classroom.

Syntax refers to the rules that determine how the symbols are ordered, and allows us to communicate complex thoughts and ideas, as well as condense them. For example, comprehension of syntax allows a student to interpret a statement such as "If you are finished (with your math you may) go outside; if not, go to the library." or "She gave her friend the paper." vs "She gave the paper to her friend." The latter example also demonstrates the flexibility of language that morphological and syntactical rules provide. The same thought or idea can be expressed in a variety of ways. Children who demonstrate inadequate comprehension and/or usage of the syntactical rules will not be availed of this characteristic of language (flexible) and may experience particular difficulties with reading comprehension.

ASSESSMENT

The following 3 instruments are frequently used to assess the receptive language skills of morphology, syntax as well as vocabulary. In each, the subject is shown a group of 2-6 pictures accompanied by a verbal statement. The subject is then required to point to the picture which best describes the statement.

Carrow: Test for Auditory Comprehension of Language (TACL)

This test consists of 101 items and yields a total Language Comprehension age equivalent score. It also provides subscores for vocabulary, morphology and syntax as well as an item analysis of errors so that instructional concerns can be easily identified. It is also available in both Spanish and English.

The Northwest Syntax Screening Test (Receptive) consists of 26 items and also provides an age equivalent score. Error analysis to determine specific instructional needs must be identified by the examiner since they are not provided within the scoring procedure.

Both the Carrow Test for Auditory Comprehension of Language and the Northwest Syntax Screening Test's norms provide age equivalent scores for children from about 3 years of age to ages 7-8.

The Assessment of Children's Language Comprehension (ACLC) is also a useful test of a child's attention to critical elements of morphology and syntax. Attention to 2, 3 and 4 critical elements are assessed and a percentage correct score is used to report performance. Assessment of two critical elements would consist of a statement such as "boy and car" accompanied by picture choices such as "boy and dog; man and car' boy and car' boy and truck." The subject is asked to point to the picture that best describes the statement. Other examples would be "happy lady"; "fat happy clown", "horse and dog eating" (3 critical elements); "dog sitting and cat eating" (4 critical elements). Adequate performance (93%) on 4 critical elements is expected by age 6 to 6 years, 11 months.

The above instruments attempt to assess the receptive language skills of vocabulary, morphology and syntax and provide some clues as to the student's efficiency in understanding the symbol and rule components of verbal language. How separable the processes of reception, integration and expression are is debatable. That is some degree of expression and integration is necessary to check reception. A response of some kind is required. The attempt in assessing receptive abilities is simply to minimize the complexity of the output or expressive behavior (i.e. pointing is considered a minimal and non-verbal response).

As we find children who demonstrate receptive language difficulties, we may identify additional instructional clues by attempting to identify some of the integration processes. Simply questioning students about why they responded as they did (for both correct and incorrect responses) allows us a better perception of how they think-associate, classify, discriminate etc. For example, if we ask a student to repeat a statement "The girl is jumping" and he does so without error we know that he is receiving the information adequately. If he points to the picture of "The boy is jumping" or "The girl will jump" we hypothesize that the statement is not in the student's repertoire of either receptive language symbol or rule comprehension. To determine whether the error is due to an inadequate receptive vocabulary or comprehension of morphology or syntax is the task to be accomplished.

EXPRESSIVE LANGUAGE

Now that we have some specific indications of how a child is receiving and interpreting verbal information, we can develop some hypotheses about why his expressive language may seem inadequate. Two generalizations about the relationships between receptive and expressive language can be made fairly comfortably. Both deal with the concept that we usually can understand information that is more complex than that which we can express ourselves about effectively. For example, a television-discussion about the helical structure of DNA and the medical implications of the discovery may be "momentarily" understood. But unless our particular expertise happens to be in biophysics/chemistry, our expression about these concepts to others will probably be noticeably dysfluent and/or inadequate. Thus, when we review a child's receptive language performance, we can generally expect his expressive language performance to be anywhere from 6-18 months less. Thus, if receptive vocabulary (re: PPVT) was at age level, his expressive vocabulary could reasonably be expected to be at an age equivalent 6-18 months less than his chronological age. The first generalization then is that:

1) Expressive language skills can be expected to be less adequate than receptive language skills.

If your 8 year old 2nd grade student's receptive vocabulary and/or rule comprehension performance was determined to be at a 7 year age equivalent, it would not be unreasonable for him to "appear" to be expressing himself like a beginning 1st grader or even Kindergartener (i.e. 5-6 1/2 year old). Obviously, the expressive language, reading and general instructional difficulties encountered by older students demonstrating 2-3 or 4 year discrepancies (or greater) between their chronological ages and receptive language age equivalents will be much more devastating unless other non-verbal forms of communication are assessed and capitalized on.

The second generalization that can be accepted with reasonable confidence is that people generally cannot accurately verbally repeat a sequence of linguistic symbols or rules which are not in their expressive language repertoire. For example, a child may be able to repeat "The train bumps the car" because of the simple object-action-object relationship but will likely be unable to repeat "The car is bumped by the train" unless he also uses this structure expressively. Thus, an informal assessment of a child's expressive verbal language skills can be conducted by analyzing errors made on either of the Auditory Memory for sentences tests (The Detroit Auditory Memory Span for Related Syllables or the Spencer Sentence Memory). While this won't tell you what his expressive language proficiency age equivalent is, it will provide some clues about what expressive, as well as receptive, skills you may need to assess in depth.

ASSESSMENT

Three useful measures for assessing expressive verbal language skills follow.

1. The first instrument which assesses morphology and is not dependent upon the child's past experiences is the Berry-Talbot Language Test - I.

It consists of non-sense figure-pictures accompanied by non-sense statements which need to be completed. It is a minimal-response expressive language test or a grammatic closure test. For example, a child is shown a picture of a "wug" accompanied by the statement, "this is a wug". The following statement "Here are two (wugs)" is accompanied by a picture of two wugs and the child is asked to complete the sentence correctly. Norms have not been developed but competence (90-100% correct) is expected by age 7-8.

2. The Carrow Elicited Language Inventory assesses the child's expressive language by how accurately he repeats various morphologically and syntactically structured sentences. Performance results are reported as percentile ranks and stanine scores. Analysis of errors in the use of articles, nouns, pronouns, (personal and demonstrative) verbs, adjectives, adverbs, negatives, contractions, prepositions and conjunctions is provided.

3. A third and common method of assessing an individual's expressive language is by taking a language sample. This is accomplished by establishing a conversational climate with the subject and recording his verbal expression about various objects, pictures and/or events verbatum. Typically, the conversation is tape recorded and transcribed later so that vocabulary and specific morphological and syntactical structures used and not used can be analyzed. Laura Lee's Developmental Sentence Scoring procedures are frequently used in this type of assessment.

By school age, most children will be able to use words that describe, show action and otherwise characterize various objects and experiences. The child with expressive verbal language problems may exhibit unclear, unintelligible and/or non-sequential speech. His verbal communication may involve a great deal of gesturing, pantomiming and sound effects. He may have difficulty retrieving words or performing the motor act of speech.

ARTICULATION

The child's ability to produce the sound symbols of language accurately also contributes to our perceptions of his expressive language quality. You may find a student who seems to have poor expressive language skills - who is difficult to understand. You may find that he has a very good vocabulary as well as understanding and usage of linguistic rules. His poor conversational intelligibility is probably due to difficulties motorically producing the sounds of speech. An easy way to assess a child's articulation skills is to ask him to say each sound individually from a phonics inventory. You can also ask him to repeat words which use the sound at the beginning, the end or the middle of the word. Just as receptive and expressive language skills are developmental so are articulation skills. Frequently children will "mispronounce" sounds in words they have used for several years but use the sound correctly in more recently acquired words. For the child who is in a predominantly phonic reading program, it is important that his articulation skills are adequate. Otherwise, he will be learning incorrect sound-symbol associations which he will eventually have to un-learn and re-learn.

It is not uncommon for the child with poor articulation skills to also demonstrate inadequate performance on the Wepman Auditory Discrimination Test. If this is not the case i.e. if Auditory Discrimination skills are adequate or or above average, specific motor difficulties or environmental or emotional factors may be contributing to his inadequate development of articulation and thus expressive verbal language skills.

HYPOTHESES FROM BEHAVIORAL OBSERVATIONS AND REFERRAL INFORMATION

Mann & Suiter and many others note that every child makes an accommodation to learning. Good or bad, this effort in many cases is the best that he can do. Unfortunately, the children who fail have not made an adequate accommodation to learning, especially it seems in the area of communication skills. Observing the child's behavior within and outside the classroom can provide many clues about the auditory and language factors with which he may be having particular difficulty. The following behaviors taken from Mann & Suiter's Primary Developmental checklists are easily observed. Your observations of these behaviors will provide some initial diagnostic information on which to base subsequent auditory and language skill assessment.

Auditory:

		YES	NO
1.	Does the child turn or cup one ear to the speaker? (hearing)	___	___
2.	Does the child fail to answer to his name from behind? (hearing)	___	___
3.	Voice (hearing)		
	excessively loud____________	___	___
	excessively soft____________	___	___
	monotone____________	___	___
4.	Does the child consistently ask to have words repeated? (hearing)	___	___
5.	Does the child have difficulty repeating a clapped sequence? clap-clap, clap-clap (memory-sequence)	___	___
6.	Does he fail to follow more than one direction? (memory-sequence)	___	___
7.	Does he fail to remember the sounds of things: animal, home, or nature (memory)	___	___
8.	Does he fail to follow the rhythm in band playing activities (memory-sequence)	___	___
9.	Is he unable to pay attention when there is noise in the room? (attention, figure ground)	___	___
10.	Does the child fail to tell the difference between human vs. non-human sounds? (discrimination)	___	___
11.	Does the child fail to tell when sounds are the same or different? (discrimination)	___	___
12.	Is he unable to locate the source or direction of sound? (attention: locatlization)	___	___

		YES	NO
13.	Does he fail to understand that the sound "m" in the word "man" is the same as the sound of "m" in the word "mop"? (memory-discrimination)	___	___
14.	Is he unable to identify most of the letter sounds? (auditory-visual, memory-discrimination)	___	___
15.	Is he unable to identify most of the letter names? (auditory-visual, memory-discrimination)	___	___

Language:

16.	Does the child consistently fail to understand directions? (reception)	___	___
17.	Is he unable to associate common objects such as a dog with a bone? (reception)	___	___
18.	Does he become confused by conversation? (reception)	___	___
19.	Is he unable to classify objects by category such as dogs, cats, vehicles, etc.? (reception)	___	___
20.	Does he fail to name familiar objects? (reception)	___	___
21.	Does he fail to understand familiar sounds: horn, bell, etc.? (reception)	___	___
22.	Does the child talk in disconnected phrases? (expression)	___	___
23.	Does he communicate with gestures and sounds? (expression)	___	___
24.	Does he speak in single words or short phrases only? (expression)	___	___
25.	Does he use words like "watchamacallit" or have strange words for common things within his experience? (expression)	___	___
26.	Other ______________________________	___	___
	______________________________	___	___

Speech (Articulation):

27.	Does the child use immature speech patterns? (baby talk)	___	___
28.	Does he distort sounds or words?	___	___
29.	Does he omit sounds?	___	___
30.	Does he substitute one sound for another?	___	___
31.	Does he stutter or stammer?	___	___
32.	Other ______________________________	___	___
	______________________________	___	___

Additional initial diagnostic clues can also be derived from information provided on both the Parent and School Referral forms. Some hypotheses about the child's auditory and language functioning suggested by referral information are presented below.

HYPOTHESES FROM THE REFERRAL FORM

Hearing

Frequent ear infections and/or earaches

- The child has chronic nasopharyngeal congestion due to allergies, lowered resistance to respiratory infections, or enlarged tonsils and/or adenoids.
- The child has a hearing loss due to the accumulation of fluid in the middle ear (serious otitis media).
- There is an accumulation of wax in the ear canal; removal of the wax may bring immediate improvement in hearing.
- The child has inserted an object into the ear which has become lodged in the outer ear, or ear canal.
- The child's eardrum has been punctured, or has ruptured due to infection.

Frequently requests teacher to repeat

- The child has a hearing loss.
- The child has problems with auditory figure-ground.
- The child has poor auditory memory.
- The child has problems with auditory discrimination.
- The child must depend on speech-reading to supplement auditory clues.

Speech and Language

Difficulty in Understanding Spoken Language

- The child has an auditory dysfunction resulting from an organic problem.
- The child has an auditory perceptual problem.
- The child has poor auditory discrimination.
- The child does not have the necessary receptive vocabulary to decode the message.

- The deaf or hard of hearing child is a poor speech reader.

Difficulty in Producing Sounds Correctly Symbols

- The child has a hearing loss and does not monitor his own speech.
- The child has an organic dysfunction that precludes the proper formation of sounds.
- The child exhibits slow physical development.
- The child had a prolonged illness early in his development.
- The child has below-normal intelligence.
- The child is from a silent home.
- There are emotional conflicts in the home.
- The parents think baby-talk is cute.
- The child has no need to talk - he gets everything without verbalizing.
- The parents are deaf.
- The child is reproducing sounds according to an incorrect example (poor speech of parents and/or peers).
- The child is from a culturally different home.
- The child is bilingual and is reproducing one language's sounds with another language's sounds according to spelling combination.
- The child has no playmates his own age.

Difficulty in Expressing Himself Orally

- The child has a speech or hearing problem (unnatural voice, cannot hear questions, etc.)
- The child has little opportunity to express himself orally.
- The child is shy and does not enter into discussion unless asked to.
- The child has a poor self concept.
- The child has a voice disorder.
- The child has a syntactical or morphological problem.
- The child has a limited vocabulary.

Stutters or stammers Rules/ Symbols

- The child has an organic dysfunction.
- The child suffers from lack of rest or sleep.
- The child is under emotional stress or strain.
- The child is avoiding communication situations.
- The child is embarrassed (self-conscious) when speaking.
- The child has learned to stutter because of reaction to the difference of his speech from the norm.
- The child has not been allowed to communicate freely - to complete a message.
- The child thinks faster than he talks.
- The child is fixated at the oral stage.

Difficulty in Expressing Himself in Writing

- The child cannot write. (motorically involved)
- The child has not had ample opportunity to express himself in writing.
- The child has figure-ground or perception problems.
- The child does not have sufficient verbal receptive or expressive language to express himself.

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VISUAL PERCEPTION AND THE LEARNING DISABLED CHILD

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VISUAL PERCEPTION

The child with learning problems due to visual perceptual difficulties often is a clumsy child; the one who bumps into things, spills milk, trips over a pebble in the road, and seems not to be "watching what he's doing." This awkwardness can show in the coordination of the "fine", or small muscles, particularly in the hands. This child would have difficulty using a crayon, scissors, buttoning clothes and in writing and drawing. Awkwardness could also appear as a lack of coordination of the "large" muscles, so that the child may appear off balance in movement. Difficulty might be noticed in walking, running, playing ball, hopping, skipping, riding a bike.

Awkward and poorly controlled movements in some children are associated with a visual perceptual disorder, a defect in the way they see what is around them. The child with visual perceptual problems has difficulty interpreting what he or she sees. Even though their vision (visual acuity) may be normal, they do not interpret what they see around them as others do.

Each of us receives sensory information or stimuli from our environment. These stimuli are relayed to the brain on sensory pathways and we react to these stimuli according to our interpretation of what we receive. For the child with visual perceptual disorders, visual stimuli may not reach the brain accurately.

A visual perceptual distortion can take many forms and, for some children, may take more than one form. Some individuals with visual perceptual disorders can't judge the relationship of objects to each other and to themselves. Those who have been in a carnival house of mirrors can relate to this sense of confusion. For the child with a visual perceptual impairment, the world is a place in which objects, events, and persons are constantly changing.

Jess Oppenheimer, a television producer who unknowingly suffered from perceptual problems until he was an adult, writes: "I can merely try to explain what seeing was like in my worst days. Describing the whole world as moving or seeing double is meaningless; because with the inner feelings of confusion, lack of equilibrium, nausea, strain and incompetence, a normal person can no more begin to sense it .... than a congenitally blind person can begin to understand what the color red is .... The confusion [was] inside, with mental impressions all disoriented. The way I saw things was something like two still pictures out of register with each other, with this lack of register continually changing, but super-imposed on this was the lack of ability to .... tell where up and down really were and whether you were going to fall over the next minute or not." (quoted from Something's Wrong With My Child p. 32).

Before assessing the intactness of the visual-perceptual processes discussed below, it is important to make sure the child's vision or visual acuity is adequate. Many school districts routinely check the visual acuity of their students using the familiar Snellen chart. While this test is a relatively good indicator of a child's far point vision, it rarely identifies children who may have near point vision difficulties. Adequate near point vision is essential for reading, and the child's ability to adjust for far and near point tasks will also affect his classroom performance. We have found the Keystone Telebinocular Screening Test a useful instrument for assessing near and far point visual acuity. The Keystone also provides some clues as to how well the child's eyes work together as well as how adequate his adjustment from far to near point tasks is. Whether or not a Keystone, or similar test, is available in your district, assessment of visual acuity prior to assessment of visual perceptual skills is obviously practical.

VISUAL MEMORY

One type of visual perceptual ability is the ability to remember what one has seen. The child with a visual memory problem may forget very quickly what he or she has seen or may exhibit sequencing difficulties. "Can", for example, may be spelled "cna" and "anc" on the same paper.

Philip Mann and Patricia Suiter have designed a screening instrument intended to indicate a child's ability to revisualize pictures of common objects. The Mann-Suiter Visual Memory Screen for Objects consists of pictures of objects in groups of two, three, four, and five. These pictures are presented to the student for a time period of approximately one second per object. The student's performance is rated as "adequate" or "inadequate" depending on the number of items recalled.

A more precise estimate of a student's visual memory is given by the Visual Attention Span for Objects subtest of the Detroit Tests of Learning Aptitude. Like the Mann-Suiter visual memory screen, this subtest consists of pictures of groups of objects and performance also is rated according to the number of objects recalled. Unlike the Mann-Suiter screen, results are given in terms of an age equivalent. The age norms for the Visual Attention Span for Objects subtest range from 3-0 years to 18-9 years.

For scoring purposes, the sequence of responses is not important on either of the above mentioned tests. However, numbering the names of the objects in the order in which they are recalled can provide valuable diagnostic information as to how a student visually scans a page. Is a pattern evident in the order of responses? Does the child progress from left to right, from right to left, is the approach random and scattered, etc?

VISUAL DISCRIMINATION

Another type of visual perceptual ability is visual discrimination. Visual discrimination refers to the ability to see likenesses and differences and to discriminate dominant as well as subtle features in different objects. The student who has difficulty with visual discrimination may find it hard to distinguish fine differences between letters such as "n" and "h" or "e" and "o" and thus may confuse words such as "red" and "rod" or "ship" and "snip".

The Mann-Suiter Visual Discrimination Screen was designed to reveal a student's ability to discriminate between designs and symbols which are similar in configuration. The student is presented with a row of five images in separate frames and asked to select the image which looks the same as the first image. The screening consists of nine problems, the first of which is a practice problem.

Like the Mann-Suiter Visual Memory Screen for Objects, this is a rather gross screening instrument. Scoring directions state only that a visual discrimination difficulty is suggested for the child of five or older who makes three or more errors. Mann and Suiter include suggestions of behavior to watch for on this test, and, as with all of their screening instruments, include suggestions for more specific measurement criteria if needed.

VISUAL FIGURE GROUND

Visual figure ground is a type of visual perception skill which involves the ability to distinguish an object from its background. The student who has difficulties with visual figure-ground may lose his or her place in a book easily, may skip sections of a test, or may not complete material presented on a crowded page.

The Mann-Suiter Visual Figure-Ground Screen is intended to determine a student's ability to "attend to a particular design (figure) while simultaneously screening out the irrelevant background (ground)." The student is asked to find a certain figure which appears more than once on a visually crowded page. Scoring is in terms of adequate or inadequate ability and is applied to the two age categories of 4-5 years and 6 years and older.

VISUAL—MOTOR INTEGRATION

Visual-motor integration is a composite of visual perception and motor coordination abilities. Visual-motor integration refers to the coordination of the eyes with the movements of the hand, or other body parts. This coordination, synchronized with directions from the brain, is required for handwriting and other motor tasks.

The student with visual-motor difficulties may have poor handwriting or may have difficulties with other activities which involve fine muscle movement, such as hand sewing or sorting. A student with visual-motor difficulties might also exhibit problems coordinating the eyes with large muscle movements such as those required in sports.

Mann and Suiter have developed a visual-motor screen intended to identify those students who may have difficulty with visual and fine motor integration. The Mann-Suiter Visual Motor Screen consists of four designs: a circle, rectangle, a triangle, and a diamond. The student is given three chances to copy each design with pencil and paper with the best effort for each design counted. Scoring information notes which design a child in the 3-6 age group should be able to reproduce and suggests a program to develop eye-hand coordination readiness for the child of seven or older who exhibits difficulty reproducing any of the designs.

Keith Beery has designed a more precise test of visual-motor ability: the Developmental Test of Visual-Motor Integration. This test consists of twenty-four geometric forms arranged in order of increasing difficulty which are to be copied with paper and pencil. Raw scores, based on the number of forms passed up to three consecutive failures, are converted to age equivalents which range from 2 years, 10 months to 15 years, 11 months. Beery includes criteria and developmental comments for each of the twenty-four forms.

Arthur Benton has designed a test which can be used as a test of visual-motor integration. The Benton Visual Retention Test consists of three alternate forms. Each form consists of ten designs. Benton suggests four differend modes of administration. Any of the three forms may be used in any mode of administration. Administration mode C requires that each design be copied by the subject with the design remaining in front of the subject. This provides an assessment of visual-motor integration similar to the Beery Developmental Test of Visual-Motor Integration. The other three administrations (A, B, and D) add the dimension of visual memory by requiring reproduction of the designs from memory. Benton includes specific scoring criteria for each design. Scores are interpreted in terms of estimated IQ ranges.

GENERAL

The Motor-Free Visual Perception Test (MVPT) is a general test of visual perception which includes tests of five types of visual perception: visual discrimination, figure ground, visual memory, spatial relationships (involving the ability to perceive positions of objects in relation to oneself and to other objects), and visual closure (the ability to identify incomplete figures). The test avoids motor involvement by presenting answers in a multiple choice format. Raw scores are converted to age equivalents ranging from four years to nine years.

EIGHT

PSYCHOLOGICAL ASSESSMENT OF CHILDREN WITH LEARNING DIFFICULTIES

What does a psychological assessment involve, when does a child need one, and how can the classroom teacher utilize the findings of such an assessment most effectively? This chapter will try to answer these questions and discuss some related issues.

Every classroom teacher is likely to encounter at least a few children in each class who seem to have significant learning problems. The type of learning problem may vary from one child to another, but the effects tend to be similar. These children often begin to view themselves as "dumb", incapable of success at school, not the same as or (not as good as) the other kids. Many times, these negative feelings, coupled with the frustration the child experiences, result in behavioral problems which can be very difficult for the teacher, parents, and for the child himself to cope with. The behavioral difficulties may take the form of withdrawal, or much more commonly, annoying or aggressive acting out behaviors. Inability to sustain attention or follow directions and lack of impulse control are often present. These are the children who need help the most, yet they are the ones who tend to be the most difficult for a teacher to help. They need extra individualized attention, a tremendous amount of understanding and guidance, and perhaps some different approaches or techniques when teaching them various skills and concepts. Of course, not all children with learning problems are difficult to handle in the classroom. Some just quietly give up. In either case, they need and deserve our help.

Sometimes, despite the best efforts of an excellent and caring teacher, a child does not seem to benefit from the extra attention and the educational methods which have been tried. In order to better understand and to effectively help such a child, a psychological assessment is often desirable.

The individual carrying out the assessment, usually a psychologist or other qualified specialist, uses tests, observations, and other pertinent information obtained from teachers, parents, and other specialists. All of this information, taken together, is used to gain the most complete understanding possible of the child and how various factors are affecting the child's learning ability, emotional status, and school performance.

It is very important that the teacher, parents, and psychologist work together closely in a process of information sharing. Each of these parties sees the child from a different perspective, in different environments and situations. It is essential that all of these individuals work in close cooperation in order to effectively help the child. It is not altogether uncommon for parents to blame schools and vice versa for a child's learning problems; this course can only be counter-productive in terms of helping the child.

Parents and teachers have important information to share with one another. For example, it is important to know whether the child with a very short attention span in the classroom can work for long periods at home on a task he really enjoys. Parents, teachers and the psychologist need to share all sorts of observations on the child--his behavior, interests, fears, ways to help him handle frustration--the list is virtually endless. Optimally, this is the kind of information sharing that should go on as an essential part of the psychological assessment. This communication should also continue after the formal assessment is over. In a sense, there should be a continuing assessment taking place.

It is very important that we view each child as a unique individual. We must look at the *whole* child. Taking into consideration mental, emotional, social, and other environmental factors. We need to get a clear picture of how all of these aspects of the child's life are interacting and how they actually affect his present situation.

Most of the information mentioned above is obtained through observation and interaction with the child. Let us now consider mental abilities and information obtained from formal tests.

Children, as well as adults, possess a variety of mental *abilities* rather than a set amount of mental *ability*. Thus, little Bobby may be 'disabled' when verbal skills are needed, yet he is a whiz at anything mechanical, and pretty good at math also. We must guard against the tendency to place a child in a single category which is based on a narrow range of all possible mental abilities. (e.g. Focusing only on Bobby's area of weakness; forgetting about his strengths.)

In utilizing test results from a psychological assessment, our goal must be to discover the pattern of strengths and weaknesses of the individual. Then, we can proceed by building upon and using the strengths, as well as working toward improvement in weak areas. A single score cannot give us this information; we need to take a good qualitative look at a whole pattern. Our knowledge of the child's unique pattern of characteristics (including a range of mental abilities, learning style, personality factors, etc.) will have just direct implications for the selection of teaching techniques, behavioral management, and a basis for determining reasonable expectations in the classroom.

Tests of mental abilities can be used to gain knowledge of the patterns of strengths and weaknesses discussed above. However, it is very important to be aware of the limitations of any test. The results of any particular test provide only one sample of the child's behavior and/or task performance. Factors such as how the child felt, both physically and emotionally, and the degree of rapport established between the child and the examiner can strongly influence the test results.

Thus, it is quite possible for a child's test performance on a particular day to be unrepresentative of his actual abilities. Test results must be viewed against the child's everyday classroom performance on tasks of a similar nature. By doing this we may find that he was nervous during testing and did not perform as well as he is capable of performing. Or we might see that a child has superior mental ability yet his classroom performance is poor because of motivational, emotional or environmental factors.

Many times a child who performs very poorly on a group test will do quite well on a test which is individually administered. Less frequently, a child cannot cope well in a one to one situation, but can function more effectively with a group test. This shows us that we must avoid making important decisions on the basis of limited test data.

Also, it is beneficial to view test results as indicators of current functioning, rather than as a predictor of future potential. This is quite important since a myriad of factors can (and do) influence future performance. In any case, it is most productive to deal effectively with the present situation and wait to see about future developments.

Tests of mental ability usually yield an "I.Q.", a much abused number. As we have already stressed, we need to know a great deal more than this number in order to help the child. In fact, the I.Q. score tends to be misleading in that people view it as a set, and fixed, amount of mental ability.

Mental ages have also been used in the past in order to indicate a child's mental functioning. However, this concept is also being abandoned to a large extent. Three different children may all receive a mental age of seven on a particular test. These children's chronological ages may be five, seven, and nine respectively. While they all have the same "mental age", we can certainly assume that they are all functioning mentally in very different ways.

Age equivalents can be a useful index of a child's performance. Let us say that a ten year old achieves an age equivalent score of eight years on one test and of thirteen years on another. This tells us that he performed the first test (or task) as well as the average eight year old and he achieved as well as the average thirteen year old on the other.

Scaled scores are also used on some tests to indicate how the child performed. For example, on a scale from 1 to 20, through 11 may be considered the average range. By viewing a series of scaled scores, we can see on which activities the child is performing at, above, or below the average performance for his age.

As mentioned earlier, mental functioning and academic performance are two separate entities. A child may have average or above average ability in every conceivable area, yet still be doing very poorly academically. Rather than saying "This child has the ability and just isn't trying ", we need to carefully examine all of the other factors discussed in this chapter.

The Wechsler Intelligence Scale for Children-Revised (WISC-R) is a widely used test of mental abilities. The test consists of two sections, verbal and performance. Listed below are brief descriptions of the type of task presented in each of the subtests and the kinds of abilities they are designed to measure.

VERBAL SUBTESTS

Information: Child answers general information questions. This subtest is intended to determine how much general information the child has assimilated from his surrounding environment.

Comprehension: Child answers questions dealing with social knowledge and judgments. This subtest attempts to determine the level of a child's ability to use practical judgment in various situations and the extent to which he is aware of basic social mores. Verbal ability tends to be an important factor since the child must be able to express his responses adequately.

Arithmetic: Child works basic arithmetic processes in his head to arrive at the answers to short 'story' problems. This subtest measures the child's ability to use abstract number concepts and numerical operations. Concentration and attention are also important factors here.

Similarities: Child tells how various objects and concepts are alike. This subtest is designed to determine how well the child can perceive essential relationships between objects and concepts. Verbal comprehension and associative thinking are necessary here.

Vocabulary: Child defines words orally. This subtest is highly dependent upon verbal ability. It measures the kind and quality of language and perhaps to an extent, abstract thinking ability.

Digit Span: Child repeats progressively longer series of digits in forward and reverse order. This subtest measures short term auditory memory. Concentration and attention are very important here.

PERFORMANCE SUBTESTS

Picture Completion: Child identifies the missing part in pictures. This subtest involves the ability to identify and isolate essential from non-essential characteristics. While some of the verbal subtests are heavily dependent upon the child's ability to concentrate and attend to auditory stimuli, this subtest requires attention to visual stimuli.

Picture Arrangement: Child arranges a sequence of pictures that tell a story in the proper order. This subtest is designed to measure visual perception and comprehension, planning ability for sequential and casual events, and the ability to synthesize parts into a whole.

Block Design: Child reproduces a series of progressively complex block designs. This subtest measures visual perception and logic and reasoning ability applied to spatial relationships. Visual-motor coordination is necessary here.

Object Assembly: Child assembles puzzles of specific objects. This subtest attempts to measure visual perception of spatial relationships, visual-motor coordination, and the ability to deal with part-whole relationships.

Coding: Child completes coded entries in a limited time period. This is primarily a visual-motor dexterity task.

Mazes: Child draws the correct path through a series of mazes. This subtest involves visual-motor coordination, speed, accuracy, planning and foresight.

As we have stated, in order to help a child, we need to know much more than the one total (full scale) score on the WISC-R. We need to carefully examine the scatter of subtest scores, the highs and the lows. Which tasks can the child do well? Which ones really give him trouble? How does he respond when there are time limits? (All of the performance subtests and the arithmetic subtest have time limits.)

We are very interested in the degree of discrepancy between verbal and performance sections. Some children, for example, seem to be primarily visual learners. Such children may do poorly on the verbal subtests which depend upon auditory abilities, yet do very well when the task is a visual one. Other children appear to be auditory learners. Such information has important implications for the kinds of educational techniques the child needs. For example, we would not want to use phonics with a strong visual learner who has significant deficits in auditory abilities. Instead, we would try a reading approach which relies heavily on the visual sense.

A very bright child might have a learning disability in the area of expressive language, thus do poorly on any task (both in the clinic, and more importantly, in the classroom) in which he must express himself verbally. Another child may be very verbal but he lacks the perceptual and visual-motor skills necessary on performance subtests. This child would tend to have different kinds of difficulties in the classroom. (e.g. tasks involving writing.)

The major point here is that we must find out the specific strengths and weaknesses of the child. The classroom teacher would want this type of information from the psychological examiner following the assessment.

A final word regarding the interpretation of test data. . . .As we have mentioned earlier in this chapter, a myriad of factors may affect a child's performance on any particular subtest. For example, a very low score on the Digit Span subtest indicates that the child did not function well (at least, at this particular time) regarding auditory memory. It is not enough to conclude that the child has an 'auditory memory problem'. We need to look for reasons. Possible causes for a poor performance on this subtest can be a high level of anxiety, disinterest in a rote-type task, poorly developed listening habits, organic brain damage, or a stomach ache at that point in the test. We would want to know how this child functions at school and at home regarding short term memory. We would be especially interested in whether his memory is much better for things in which he is truly interested.

We have described a psychological assessment as a careful study of a wide range of information--The child's performance on various tests, reports from the parents and teachers who know him best, and observations of the child at home, school, and clinic. What are some of the types of things we might be watching for in our observations?

---How does the child react to various tasks and activities? What kinds of things and situations does he seem to enjoy and be comfortable with? What kinds of tasks or situations make him nervous and uncomfortable?

---How does the child react to different people? What are his reactions to various personalities? Does he do best with a very calm, low-key approach on the part of an adult? Does he seem to need very specific and firm limits set by the adult?

---How does he handle frustration and stressful situations? Does he withdraw from the situation, become aggressive, etc.?

---How does the child attack a problem (both academic and social)? What are his methods of problem solving? Does he use an orderly approach, trial and error, etc.? As he goes through a task, at what point does he become confused?

---Will the child take the initiative in problem solving situations? Has he developed a pattern of having others take over and do his problem solving for him? Is he overly dependent upon adults?

---When and to what degree does he become anxious when having to deal with various tasks and situations? Is he operating under a high degree of anxiety? To what extent is he preoccupied by a fear of failure? (Many children find it less painful to simply give up and not put forth any effort rather than to risk the embarassment of another failure experience.) Is it difficult for the child to respond to a question with an honest "I don't know"?

---How does the child get along at home with parents and siblings? Is the family going through a particularly tense period? How does he get along with teachers, other adults, and with his own peer group?

---What types of behavior bring this child attention and recognition? What kinds of activities is he good at and does he have a chance to gain recognition in a positive manner?

We have tried to show in this chapter how a good psychological assessment can be of tremendous value in terms of helping a child with learning difficulties. Specialized help for such children is often desireable, yet it is often the classroom teacher who is in the best position to help. Hopefully, the information presented here will make that difficult job a little easier.

NINE

ANALYSIS OF THE DATA

When establishing a program for a student with learning problems, it is recommended that both strengths and weaknesses be considered. It is up to you as the diagnostician to find out what channels are open to receive input. We need to look at each child's behavior patterns, his level of academic functioning and how he is functioning in relation to his abilities, disabilities and age level. Now we must start looking at how an individual learns and try not to impose upon him our preferred style of teaching. If we are stronger in the auditory area, do we find ourselves saying to the children "listen up" or "open those ears up"? How about the teachers who stress the visual approach, "look at me" or "look up"? It is important to remember that there are students who can remember without giving you perfect eye contact. This student may be looking in another direction and still hearing everything being said.

In the following chapter we are going to spend time examining the data obtained from an evaluation and how it may help in determining a child's learning style. It is up to the teacher to be aware of the student's needs and determine the channel by which he or she can receive input for learning. We need to find where the child is breaking down in the learning process and how this relates to the perceptual areas i.e., memory, discrimination, language, etc. In this chapter we are going to examine the data collected in these perceptual areas in order to determine what problems a child may be having. This could be called an eclectic approach to diagnosis. It emphasizes the whole child in relation to his environment. Knowing this information will help in attempts to change those things necessary to give the learning disabled child success.

Up to this point you have been involved in administering diagnostic instruments to determine the child's specific learning difficulty. As you may know by now, not all children with learning problems will require a detailed evaluation. In some instances a very informal assessment with teacher made tests or systematic observation will suffice. Also, you may be finding that there are children who need a much more detailed evaluation because they have been experiencing a severe and possibly prolonged learning problem. As there are varying degrees of learning disabilities, so there are varying degrees of assessment.

During the past several years much of the diagnostic process has been criticized by various groups. In many instances it has been justified. One of the major objections is that children have been given labels and possibly cast into a special classroom, never to emerge into the mainstream until they are out of school. All too often schools want to label a child. The label can help to rationalize the responsibility away if this child does not progress adequately academically. It is not our job to label these children but to find out why they are not learning the way we are teaching and to teach the way they learn. We feel that the classroom teacher plays a special role in the assessment of children with learning problems and that teachers are quite capable of using both formal and informal assessment procedures.

Up to this point in the evaluation you have been involved with gathering information from the school, the home, possibly from a physician and from the child. You, as the diagnostician, have been administering a battery of diagnostic tests along with making personal observations in an attempt to better understand:

- . why a child might be having a learning problem.
- . what the specific areas of weakness are.
- . what the child's strengths are.
- . what method of teaching works best.
- . what the outside factors contributing to the problem are.

To help you keep track of your information, the following forms have been developed. You may want to use one like this or develop one of your own. This will help you compile your data so that you do not have to keep sifting through your test sheets each time you need information on your child. This also will help when all the information is pulled together. You can start seeing some correlations of discrepancies in what you have. From the time you start assessing a child's learning problems you begin observing and analyzing the child, the test data, the history and any medical aspects in an attempt to gain clues that might tell you what is happening with the child.

As you begin to sift through the data it is easy to get caught in the trap of making decisions strictly on test scores. You need to be aware that just because a child scores low on one or two tests that this doesn't necessarily pinpoint his problem area. As a teacher you need to go by your own intuition in some cases. You know more about a child in your classroom than any specialists, and how he performs on a particular test in a given situation may not give a true picture of what he can do. Test data can give you something to work from but try not to put all your faith in the test results alone. Of course you may have a child who scores low on all the auditory tests, but possibly there are other variables that need to be taken into consideration such as the child's anxiety about taking tests, or the particular situation when the test was administered. Perhaps the child would rather have been some place else and was not interested in the testing. There are many variables to be aware of, but the most important variable is the child, how he sees himself and what is important to him.

As you analyze the test data look for any consistencies that fit together in helping you make a diagnosis of the problem. If the data shows that a child has poor auditory memory see if this information is consistent with his behavior in the classroom i.e., failing to follow directions, needing to have things repeated, or not attending to verbal instructions. On the other hand, you may have a student who has a difficult time remembering assignments from the board or problems writing information from the board. Does the test data indicate that here is a visual-motor or visual memory problem? You need to ask yourself if the data you are gathering makes sense when considering the behaviors the student is exhibiting and what you perceive the problem to be.

It is always a good idea to go over your scoring of the tests at least twice to make sure you have not made a mistake. Even those who have been testing for many years still goof now and then when adding or subtracting, Name____________________

Age____________________

Grade____________________

Birthdate____________________

Academic Data:

WRAT: (Grade Levels) Reading_____, Spelling_____, Arithmetic_____

Reading Inventory - Comprehension

	Independent	Instructional	Frustration
Oral			
Silent			
Listening			

Method of Word Attack____________________

Observations:

Visual Test Data:

Beery Test for Visual Motor Integration__________(Age equivalent)

Motor Free Visual Perception Test__________(Age equivalent)

Detroit Visual Memory for Objects__________(Age equivalent)

Benton Visual Memory____________________

Mann & Suiter Visual Figure Ground__________

Observations:

Auditory Test Data:

Wepman Test of Auditory Discrimination____________________(adequate)
(inadequate)

Spencer Memory for Sentences__________________________(Age equivalent)

Detroit Auditory Attention Span_______________________(Age equivalent)

Auditory Blending_____________________________________(Age equivalent)

Auditory Memory for Digits____________________________(Age equivalent)

Observations:

Other Tests:

Raven Progressive Matrices____________________________(Age equivalent)

Peabody Picture Vocabulary Test_______________________(Age equivalent)

History:

Family

Pregnancy

Birth

Developmental

Medical

Educational

Child's Strengths:

Child's Weaknesses:

Summary of the Evaluation:

especially if in a hurry. Above all, try to keep everything in perspective and not lose sight of what is going on with the child outside the school environment i.e., in the home, the neighborhood.

As you begin to look at the data, certain clusters of scores begin to tell you where a problem area may be in relation to the child.

If all the scores are low in the majority of visual tests given, you may begin to assume the child possibly has a problem with:

a) visual-perception

b) visual memory

c) visual-motor integration skills

d) a need for glasses

e) visual-figure ground

A child who scores below his age level on most of the auditory tests may be experiencing difficulties with:

a) hearing

b) auditory memory

c) auditory blending

d) auditory discrimination

e) auditory closure

f) auditory figure ground

g) not attending to the task

You will find children who may have a deficit in only one of the perceptual areas or several. Some children may be experiencing difficulties in school because of poor auditory discrimination which affects the way they hear language. This would be especially important to know if the student was in a phonic program. On the other hand you may have a child with a visual perception problem which causes him to reverse and invert letters and words yet has terrific auditory skills. There are some children who may be functioning below the average norm in both the auditory and visual areas. Here you may be dealing with improper brain functioning or possibly a below average mental ability. With children like this you will probably have to rely on all the senses for remediation purposes.

As educators we need to be aware of the child who is functioning well below his actual grade level yet in fact may be functioning at his potential. This same child may be below his average age equivalent in most of the perceptual areas both visual and auditory but be of low to normal mental ability.

These are things we must be aware of if we are going to be making predictions on academic growth rate and giving success to students.

Following are examples of children who have received diagnostic assessments in an attempt to determine why they are having difficulties in school. As you look through the data try to make some hypotheses about what you feel the problem(s) might be. We have given you just enough data so that you can pick up on the students possible strengths and weaknesses. The first two pages will have diagnostic data and the third will give you some possible diagnosis of what the difficulty could be. By this point of the inservice you should be familiar enough with the diagnostic tests to begin to make some of your own assumptions about the data presented.

Also included will be examples of cases written at the Education Evaluation Center which you may be interested in reviewing. These are the types of reports which are sent to schools, parents, physicians, and possibly a neurologist should the case warrant a neurological examination. The reports will take you through a complete formal evaluation with a summary and recommendations that follow to the school and home.

The following chapters will begin to prepare you for initiating a program now that you have identified the problem and know the child's strengths, weaknesses and the channel(s) open to receive information.

Name Joe

Age 7 years, 2 month

Grade 2nd

Birthdate 10-5-71

Academic Data:

WRAT: (Grade Levels) Reading 1.0 , Spelling 1.2 , Arithmetic 1.9

Reading Inventory - Comprehension

	Independent	Instructional	Frustration
Oral	P		1
Silent		PP	P
Listening	3	4	5

Method of Word Attack Whole Word

Observations:

Visual Test Data:

Beery Test for Visual Motor Integration 6 yrs., 0 mths. (Age equivalent)

Motor Free Visual Perception Test 7 yrs., 0 mths. (Age equivalent)

Detroit Visual Memory for Objects 5 yrs., 9 mths. (Age equivalent)

Benton Visual Memory Not given

Mann & Suiter Visual Figure Ground Adequate

Observations:

Auditory Test Data:

Wepman Test of Auditory Discrimination Adequate (adequate) (inadequate)

Spencer Memory for Sentences 7 years, 0 months (Age equivalent)

Detroit Auditory Attention Span Not given (Age equivalent)

Auditory Blending (ITPA) Normal (Age equivalent)

Auditory Memory for Digits 6 years, 9 months (Age equivalent)

Observations:

Other Tests:

Raven Progressive Matrices 7 years, 6 months (Age equivalent)

Peabody Picture Vocabulary Test 6 years, 3 months (Age equivalent)

History:

Family

Youngest child of four. Somewhat dependent on others.

Pregnancy

Normal.

Birth

Normal.

Developmental

Average

Medical

No problem

Educational

Slow to catch on in first grade.

Child's Strengths:

Joe appears to have adequate auditory skills. His reasoning ability on the Raven was normal. Below grade level in reading although he has good listening comprehension.

Child's Weaknesses:

Visual-Motor integration skills are down.
Visual Perception and Visual Memory are below age level.
Below average vocabulary knowledge as shown on the Peabody.

Summary of the Evaluation:

Joe is a 7 year, 2 month old boy who appears to have average intelligence. His main difficulty seems to be in the area of reading and spelling.

The test data indicates that Joe is having difficulty in the visual areas i.e., with remembering what he sees or being able to reproduce what he sees in writing. He is below average in vocabulary knowledge which keeps him from understanding what he reads.

Joe is a young second grader having an October birthdate along with depending on others to do things for him.

Because his auditory skills are good the auditory channel seems to be his best channel for learning at this time.

Name Angela

Age 13 years, 6 months

Grade 6th

Birthdate 1-10-66

Academic Data:

WRAT: (Grade Levels) Reading 3.2, Spelling 2.9, Arithmetic 3.6

Reading Inventory - Comprehension

	Independent	Instructional	Frustration
Oral	2	3	4
Silent	2	3	4
Listening	2	3	4

Method of Word Attack Tried at phonics but did not do well.

Observations:

Visual Test Data:

Beery Test for Visual Motor Integration 11 yrs., 7 mths. (Age equivalent)

Motor Free Visual Perception Test 9+++ 34/36 (Age equivalent)

Detroit Visual Memory for Objects 12 yrs., 1 mth. (Age equivalent)

Benton Visual Memory

Mann & Suiter Visual Figure Ground Adequate

Observations:

Auditory Test Data:

Wepman Test of Auditory Discrimination Adequate (adequate) (inadequate)

Spencer Memory for Sentences Not given (Age equivalent)

Detroit Auditory Attention Span 9 years, 3 months (Age equivalent)

Auditory Blending Below average (Age equivalent)

Auditory Memory for Digits 10 years, 2 months (Age equivalent)

Observations:

Other Tests:

Raven Progressive Matrices 11 years, 0 months (Age equivalent)

Peabody Picture Vocabulary Test 11 years, 6 months (Age equivalent)

History:

Family

Seven children. Parents did not finish high school. Two other children are having difficulties in school.

Pregnancy

Normal.

Birth

Difficult

Developmental

Slow

Medical

Normal

Educational

Angela has had a difficult time in school since the first grade.

Child's Strengths:

Her strongest area was visual memory which was a year below her chronological age.

Child's Weaknesses:

Her auditory skills are below average along with her reasoning ability and vocabulary knowledge.

Summary of the Evaluation:

Angela appears to be depressed in all areas. It may be that we need more data such as an intelligence test to determine where she is functioning mentally.

Name John

Age 13-10

Grade 7th

Birthdate 7-12-64

Academic Data:

WRAT: (Grade Levels) Reading 3.9 , Spelling 4.5 , Arithmetic 5.0

Reading Inventory - Comprehension

	Independent	Instructional	Frustration
Oral	4th	5th	5th
Silent	4th	5th	5th
Listening	5th	6th	7th

Method of Word Attack Tried using the phonic approach.

Observations:

Visual Test Data:

Beery Test for Visual Motor Integration 9 yrs., 6 mths. (Age equivalent)

Motor Free Visual Perception Test Not given (Age equivalent)

Detroit Visual Memory for Objects 13 yrs., 0 mths. (Age equivalent)

Benton Visual Memory Not given

Mann & Suiter Visual Figure Ground Adequate

Observations:

Auditory Test Data:

(adequate)
Wepman Test of Auditory Discrimination Below average (inadequate)

Spencer Memory for Sentences Not given (Age equivalent)

Detroit Auditory Attention Span 5 years, 0 months (Age equivalent)

Auditory Blending Not given (Age equivalent)

Auditory Memory for Digits 6 years, 6 months (WISC-R) (Age equivalent)

Observations:

An intelligence test showed John to have average mental abilities. He did score higher on the performance tests than the verbal tests.

Other Tests:

Raven Progressive Matrices Not given (Age equivalent)

Peabody Picture Vocabulary Test 10 years, 4 months (Age equivalent)

History:

Family

Normal family life - John likes doing physical things.
Oldest of three children. Others do well in school.

Pregnancy

Normal

Birth

Normal

Developmental

Medical

Frequent ear infections and colds.

Educational

Child's Strengths:

- Good visual memory.
- Supportive family.

Child's Weaknesses:

- Very poor auditory skills.
- Low in receptive vocabulary skills.
- Some visual-motor integration problems.

Summary of the Evaluation:

John if of average intelligence with exceptionally low auditory perception abilities. He has a very difficult time remembering what he hears. Frequent colds and ear infections may have initiated these problems.

His poor auditory memory and discrimination skills would make reading difficult if trying to rely on a phonic approach.

John will need work in vocabulary to increase his word knowledge. Part of his problem could be not hearing the words correctly. (Poor auditory discrimination skills.)

John seems to learn best visually and where he can have a "hands on" experience.

Name Marie

Age 15 years, 9 months

Grade 10th

Birthdate 8-25-63

Academic Data:

WRAT: (Grade Levels) Reading 11.0, Spelling 10.9, Arithmetic 10.0

Reading Inventory - Comprehension

	Independent	Instructional	Frustration
Oral	6	7	8
Silent	6	7	8
Listening	9	10	10

Method of Word Attack Good phonic and context reader.

Observations:

On the eighth grade reading material Marie made very few word errors. Her reading was very fluent and rapid.

Visual Test Data:

Beery Test for Visual Motor Integration 15 yrs., 0 mths. (Age equivalent)

Motor Free Visual Perception Test Not given (Age equivalent)

Detroit Visual Memory for Objects 16 yrs., 10 mths. (Age equivalent)

Benton Visual Memory Adequate

Mann & Suiter Visual Figure Ground Not given

Observations:

Auditory Test Data:

Wepman Test of Auditory Discrimination Adequate (adequate) (inadequate)

Spencer Memory for Sentences Not given (Age equivalent)

Detroit Auditory Attention Span 14 years, 5 months (Age equivalent)

Auditory Blending Not given (Age equivalent)

Auditory Memory for Digits (ITPA) 15 years, 10 months (Age equivalent)

Observations:

On the Wechsler Intelligence Scale for Children-Revised (WISC-R), Marie was of adequate mental ability. Her lowest scores were in vocabulary (10 years, 2 months) and Information (12 years, 10 months).

Other Tests:

Raven Progressive Matrices Not given (Age equivalent)

Peabody Picture Vocabulary Test 10 years, 0 months (Age equivalent)

History:

Family

Six children in the family. Marie is in the middle. Father is a laborer. The family has moved quite often.

Pregnancy

Normal.

Birth

Normal.

Developmental

Normal, although a little slow with initial speech.

Medical

No problem.

Educational

Was in six different schools her first four years of school.

Child's Strengths:

Adequate auditory and visual skills.

Good word recognition and spelling but does not understand what the words mean.

Child's Weaknesses:

Marie is extremely weak in receptive and expressive vocabulary.

Poor comprehension in reading.

Summary of the Evaluation:

It appears at this time that Marie needs work on vocabulary building. Her reading skills are good but she does not understand what she reads because she doesn't know the vocabulary.

Name: Judy
Age: 13-10
Birthdate: 7-12-64

Referral:

Judy was referred to the Education Evaluation Center by her parents in conjunction with the school. Concerns over Judy's academic performance, particularly in reading and arithmetic were expressed. An instructional program appropriate for Judy's abilities and needs was requested. Judy is presently in the seventh grade.

History:

A conference was held with Judy's mother. Other than a long labor (24 hours) the pregnancy and birth appeared to be normal. Developmentally everything was average, except when she first walked which was at fifteen months of age. Judy has allergies year round which show up as a rash, sneezing or has the same effect as a cold. As a child, Judy had frequent colds and many ear infections.

Judy went to kindergarten. It was in the first grade that the mother indicated Judy first started having academic problems in school, most of which were thought to be caused from lack of interest or laziness. In the third grade she was held back.

Judy is the oldest of three children. She likes horseback riding and playing with little children. She has several families that she baby sits for. There are times when she does not want to finish her chores but will reluctantly.

Previous Study:

Results from previous studies reported that in March of 1974 Judy was given the Wechsler Intelligence Scale for Children. At that time she was functioning in the average range in performance and below average in the verbal areas. Scaled scores were not given.

Academic performance on the referral indicate the following grade levels:

Reading	3.8
Spelling	3.8

Present Study:

Judy was administered a selected battery of tests. Carol Mathews-Ayres conducted the Speech, Language and Hearing evaluations and this examiner pursued the academic and psychological assessments.

Psychological:

WISC-R: The Wechsler Intelligence Scale for Children-Revised indicated performance in the average to low average range in overall mental ability. The performance areas were average with the verbal areas being somewhat depressed.

Considering a range of 9-10 as average, scaled scores in the various subtests were as follows:

Verbal		Performance	
Information	8	Picture Completion	10
Similarities	9	Picture Arrangement	11
Arithmetic	8	Block Design	10
Vocabulary	7		
Comprehension	7		
Digit Span	4		

Receptive Vocabulary: The Peabody Vocabulary Test revealed an age level of 10 years, 4 months.

Visual-Motor: The Beery-Buktenica Development Test of Visual-Motor Integration indicated visual-motor development at 9 years, 6 months.

The Bender Visual-Motor Gestalt Test indicated visual-motor performance to be slightly below average.

Visual-Memory: The Detroit Visual Attention Span for Objects Test revealed an age level of 12 years, 3 months.

Speech and Hearing:

Speech: Voice and articulation were fine.

Hearing: Pure Tone audiometric screening and impedance testing determined Judy's hearing to be within normal limits.

Auditory Discrimination: The Wepman Test of Auditory Discrimination showed below average development.

Speech discrimination measured by phonetically balanced word lists was 100% correct on the right and 92% correct on the left.

Auditory Memory: The Auditory Sequential Memory Subtest of the ITPA (digits) showed a 4 year, 10 month level of performance.

The Detroit Auditory Attention Span for Related Syllables (sentences) showed performance at a 5 year, 0 month equivalent.

On the WISC-R Digit Span Judy received an age equivalent of 6 years, 6 months.

Academics:

WRAT: The Wide Range Achievement Test indicated the following grade equivalents:

Word Recognition	3.9
Spelling	4.5
Arithmetic	5.0

On the Word Recognition test Judy used the whole word method of word attack predominantly. She used limited phonics skills for sounding out words.

Reading Comprehension: The Silvaroli Reading Inventory revealed the following oral and listening comprehension levels:

	Independent	Instructional	Frustration
Oral	4th	5th	5th
Listening	5th	6th	7th

Judy's reading errors were marked by repetitions, hesitations and substitutes. During the oral reading Judy relied on the whole word approach to reading. At the fourth and fifth grade levels, even though her reading was slow, her comprehension was adequate. Many of her errors on comprehension were from lack of understanding the vocabulary.

Math: Parts of the KeyMath Diagnostic Test as well as the Wide Range Achievement arithmetic section were given to Judy. Her weakest areas were with fractions, money, and measurement. Judy has a fairly good grasp of basic addition, subtraction and multiplication problems. Overall she is functioning at about the fifth grade level.

Vision: The Keystone Telebinocular indicated no apparent vision problems - with her glasses on.

Observations:

During the evaluation Judy was extremely cooperative and willing to try all tasks given her. Her attitude was good. She did seem to have a very good self concept. She knew she was having problems in school and not functioning at grade level but didn't know why. She indicated that she tries but that it is hard for her to learn.

Summary:

Judy is a thirteen year old girl who is currently functioning within the average to low average range in mental ability. Many of her problems appear to stem from difficulty with her auditory processes, i.e., auditory memory - not being able to hold on to or remember what she hears, auditory discrimination - not being able to hear similarities and differences between and among words and sounds. Having these deficiencies would make it difficult to read using a phonic approach because the emphasis is on auditory imput. With poor auditory skills it is very difficult for her to learn from oral instruction. Judy's vocabulary knowledge is low which may be due to her deficits in auditory processing. If Judy has to learn only from listening she's going to have an extremely hard time. Her frequent colds, ear infections and allergies only add to the problem.

Judy is a little low in her ability to draw and reproduce designs. This may be a reason she does not like to draw in art class.

Judy learns best if she can see, hear and feel what she is learning. It would help if she could have concrete experiences with a hands on approach.

Academically Judy is functioning two to three years below her actual grade level. All indications are that Judy does have a specific learning disability which may be a result of the brain not functioning adequately in the auditory perception areas. It may not be the case that Judy is lazy or not trying. It may be she can't do a particular task. At this point in time Judy is very self conscious about her problem and lacks confidence in herself, although she will try.

Strengths: A willingness to try, good sense of humor.
Visual memory, learns through visual and tactile method.

Weaknesses: Auditory memory, auditory discrimination,
low in word knowledge - Vocabulary,
below grade level in reading, spelling, math.

Recommendations:

It is recommended by this clinician that Judy receive individual or small group instruction in reading and math.

When working with Judy it will be extremely important to present material using the visual approach. Enclosed is a list of activities for the visual learner.

Reading: When working with Judy in reading use the sight approach and do not have her rely on phonics. Enclosed is a handout for teaching sight words and one using the visual-motor skills for teaching sight words. Also is a list of activities to help increase reading comprehension. You may want to use some of these activities with Judy.

Vocabulary: It will be extremely helpful to work with Judy on her vocabulary skills. When working on new material in any subject area it would be helpful for someone to go over new words and terms she may encounter. Enclosed are activities for helping to increase vocabulary skills and word knowledge.

Auditory Memory: Judy will have a difficult time following a series of oral directions; recalling messages; recounting a sequence of events from a story; and blending phonic units into a complete word. Enclosed are several activities for working on increasing auditory memory. This is a weak area for Judy and so you may not want to push too hard. Try working on these skills but do not expect large gains.

Math: Judy still needs help with some of the basic operations in math. Enclosed is a handout explaining how arithmetic relates to the learning disabled student. Also is a list of suggested remedial activities arranged in the basic operations with scope and sequence.

General: Some things which may benefit Judy in the school setting and make it a little easier for her to learn follow:

Seat her in front of the class where she can see and hear what is going on.

If directions are given, try going a little slower or taking time to see if she understands, it may be necessary to write the directions out.

Judy learns best by doing, any hands on experiences would be helpful, i.e., she seems to be doing better in science now that she's in lab and not having to get all of her information from the book.

At some point in time she may need to tape record lecture classes and go over them later in the day.

Judy loves working with small children. It would be beneficial if she could tutor younger children in the areas of reading and math. This would help her skills plus build her self concept.

Enclosed will be a list of high interest low vocabulary books. Judy likes mystery and love stories.

Emotional: Judy does have a specific learning problem and is very much aware of it. She has had heavy comments laid on her by other students. Try to be aware of this and be there to support and give encouragement to her. Her learning problem will always be with her. The one thing we can do is help her to adjust to it and fit other programs to work on her strengths.

Enclosed are guidelines for writing an Individual Education Plan (I.E.P.).

Home: At home it will be extremely important to be supportive of Judy. She may come home from school frustrated at times because of comments from other students or just from the frustration of trying to learn. Try to be aware and open to talk with about any problems she may be having.

Keep in contact with the school so you know what programs Judy is involved with. If she needs help with her home work give it to her as long as the situation is relaxed. If you or Judy become tense or frustrated stop. Try to set up a time when Judy can complete home work. This should not be done right after school. Judy needs time to relax and unwind. A physical activity she enjoys doing would be helpful.

Keep in mind that Judy has a difficult time remembering oral directions. You may want to make a list of chores she is expected to perform and then she can check them off each day. She does need to have responsibilities and be held to them.

A book you might want to purchase is:

They Too Can Succeed - Author - Doreen Kronich
Academic Therapy Publishers
1539 Fourth Street
San Rafael, California 94901

Enclosed is a list of high interest low vocabulary books. There may be some you would like to purchase.

Thank you for referring Judy to our center. Please feel free to call or write should you have any questions.

Name: Cathy
Age: 12-4
Birthdate: 1-6-66

Referral:

Cathy was referred by her fifth grade teacher. Concerns over Cathy's academic performance, particularly in reading and language development were expressed.

History:

A conference was held with the father. According to the father there were no difficulties during the pregnancy or birth. Her physical development appeared slow in relation to the other children. There was a divorce in the family when Cathy was four years of age. Since the age of five Cathy has been living with her father and brother and sister. Robert is aged 15 and having some difficulties in school. Iva aged 14 is average in school and gets along well with people.

The father did not remarry and Cathy has spent a great deal of time with baby sitters. Now that the father is retired he is able to be home with the children.

The father indicated that the school noticed Cathy was having some difficulty in the third grade. She was retained last year and so this is her second year in the fifth grade.

Present Study:

Cathy was administered a selected battery of tests. Carol Mathews-Ayres conducted the Speech, Language and Hearing evaluations, while this examiner pursued the academic and psychological assessments.

Psychological:

WISC-R. The Wechsler Intelligence Scale for Children-Revised indicated performance in the average to below average in overall mental ability.

Considering a range of 9-11 as average, scaled scores on the various subtests were as follows:

Verbal		Performance	
Information	7	Picture Completion	10
Similarities	6	Picture Arrangement	11
Vocabulary	8	Block Design	7
Comprehension	10	Object Assembly	6
Digit Span	4		

Reasoning Ability: The Raven Progressive Matrices, a non-verbal test indicating ability to perceive relationships, indicated adequate development scores, 33 correct out of a possible 36.

Receptive Vocabulary: The Peabody Picture Vocabulary Test revealed an age equivalent of 10 years, 5 months.

Visual-Perception: The Motor-Free Visual Perception Test indicated Cathy was having difficulty with visual closure skills. On this part of the test she missed five out of eleven.

Visual-Motor: The Beery-Buktenica Development Test of Visual-Motor Integration indicated visual-motor development at 7 years, 2 months.

The Bender Visual Motor Gestalt test indicated below average development. Organization was good and there were no reversals or inversions. There was some distortion on designs.

Visual-Memory: The Detroit Visual Attention Span for Objects Test revealed an age level of 11 years, 0 months.

Speech and Hearing:

Speech: Voice and articulation appeared normal.

Hearing: Pure-tone audiometric screening indicated hearing to be at the lower limits of the normal range. Impedance testing suggests negative middle ear pressure in the right and left ears.

Auditory Discrimination: The Wepman Test of Auditory Discrimination showed adequate development. Speech discrimination was normal.

Auditory Memory: The Sequential Memory Subtest of the ITPA (digits) showed a 5 year, 6 month age equivalent.

The Detroit Auditory Attention Span for Related Syllables (sentences) showed a performance at an 8 year, 0 month equivalent.

Digit Span on the WISC-R revealed an age equivalent of 6 years, 6 months.

Academics:

WRAT: The Wide Range Achievement Test indicated the following grade equivalents:

Word Recognition	4.7
Spelling	3.7
Arithmetic	4.5

On the Word Recognition test Cathy used the whole word method of work attack predominantly.

Reading Comprehension: The Silvaroli Reading Inventory revealed her instructional reading level to be at the high fourth - low fifth grade. Cathy used the whole word approach.

Math: Cathy's weakest area in math is fractions. She still lacks the basic concepts.

Cathy appears to understand the basic operations in addition, subtraction and multiplication.

Vision: The Keystone Telebinocular indicated no apparent vision problems.

Observations:

During the evaluation Cathy was extremely cooperative and worked on all tasks given her. There were no indications of any emotional problems other than a lack of confidence. Cathy is very aware that she is having difficulties in school.

Summary:

Cathy is a twelve year old girl currently functioning average to a little below average in her overall mental ability. Her auditory memory skills are extremely low, making it difficult for her to hold onto and remember what she hears. This would make it difficult learning to read using a phonics approach because of the emphasis on auditory imput. It is harder for her to learn from oral instruction. Cathy has a difficult time retaining what was learned. For example, during a particular lesson she may remember for a short time and then forget, or not remember a sequence of events or directions. Her vocabulary knowledge is below normal which will affect her reading and expression because she does not understand word meanings.

Cathy is also functioning below average in her perceptual motor skills which may indicate why she does not particularly like to draw.

Academically she is functioning approximately a year to a year and a half below grade level. In relation to her deficiencies she appears to be doing quite well.

From the evaluation it appears that Cathy learns best if she can see, hear, and touch what she is learning. Her strongest area is visual. It would help if she could have concrete experiences with a hands on approach.

She lacks self confidence but is very willing to try.

Strengths: Visual-memory, learns through the visual and tactile method, a willingness to try.

Weaknesses: Auditory memory, word knowledge - vocabulary, Perceptual - Visual - Motor Integration skills.

Recommendations:

Medical: From the results of the hearing evaluation it is recommended that Cathy have her ears examined by a physician.

School: It will be important to present material using the visual approach. Enclosed is a list of activities for working with the visual learner.

Seat Cathy in the front of the room where there are fewer distractions and the teacher can check to make sure she understands specific instructions. The teacher may need to slow down at times or put information on the board so Cathy can see as well as hear what she is to do. Possibly working with another student may help.

Reading: Use a sight approach with Cathy. Enclosed are activities for teaching reading using this approach. Also enclosed is a list using the visual/motor approach for sight words. It may be of help to work on reading rate also.

Working on vocabulary and comprehension will be helpful in increasing reading ability. Enclosed are recommendations for increasing vocabulary and reading comprehension.

Auditory Memory: It would be beneficial to work on Cathy's auditory memory skills. These skills may be increased to a degree. Enclosed are suggestions for working on auditory memory.

Math: Cathy needs concrete experiences when working in math. It will take repetition and drill with overlearning of one concept at a time. Enclosed is a list of activities in the basic operation and sequence for remedial purposes. Also enclosed is a series of SLAM math books for addition and subtraction. The back pages may be beneficial for drill work.

General: It is recommended that Cathy have some one-to-one and small group instruction with work in reading and math.

Home: At home it will be extremely important to be supportive of Cathy.

If she does not seem to remember what you tell her you may need to slow down. If there are chores for her to do write them down on paper so she can keep track of what she is to do.

Keep in contact with the school to see what programs Cathy is in.

TEN

SITUATIONAL ANALYSIS
OR
WHEN ALL ELSE FAILS

SITUATIONAL ANALYSIS

Providing the best method and materials for some learning disabled children will still not provide the answer to, "Why aren't these children reading better?" A feeling of the teacher that more is needed to accommodate the child by the recurrence of this question is manifest. A first thought occurs that a thorough personality study by a psychologist might be useful. While this is indicated for some children it is not necessary for most of them.

This author proposes the technique of situational analysis to better understand the dynamics of a particular child with a learning disability, so that we, as teachers can be in a better position to help the child. Some teachers will have difficulty utilizing any system that has to do with emotional-social adjustment. After all they are paid to help the child academically. However, many continue the search for answers to the question "Why isn't this child reading/achieving better".

There isn't a single text that would answer all of the questions you might have as you think about a child's behavior and why it is as it is. However, if you, as a teacher or an administrator, will project yourself into the situation of the child in question and think how you would feel and what your impulse to action might be, you are on your way to becoming a situation analyzer. Admittedly, we bring different values to bear on the analysis, because we've had different experiences, and have different sensitivity levels to different situations. But there are common needs we all share and if we try to be as objective as possible it will aid us in understanding these needs and how they relate to the behaviors of children.

BASIC NEEDS

Physiological Needs - to satisfy hunger and thirst, to maintain the integrity of the systems, and the avoidance of pain.

To Be Free - free to do as one wants until it infringes on someone else's right.

To Belong - there is greater security even in lower animals by being a part of a group.

To Feel Secure - when one can predict the events of his/her environment, one feels more secure.

To Be Wanted and Needed - everyone has the need to be wanted or needed.

To Be Recognized - as capable of being an individual of worth.

Situational analysis then, is simply an examination of the total environment of the child to see if and how his or her needs are met and to hypothesize how the child might feel and behave as a result.

WE DO THE BEST WE CAN UNDER THE CIRCUMSTANCES

It is not that we simply understand and accept that the child is doing the best he or she can. But an accepting attitude allows us to examine the circumstances causing the behavior and help us make some changes in the circumstances precipitating unacceptable behavior. This behavior might be withdrawal, acting out, or inefficient learning. For many this may be a difficult concept to accept but if one will consider the intrinsic facets of the child and consider the needs not being met by the child's environment, it is easier to accept.

Let's Hypothesize:

Physiological Needs - If the physiological needs are not met, the organism (child) is in a state of exaggerated disequilibrium. This may manifest itself in restlessness, inattentiveness and/or what appears to be non directed activity.

To Be Free - One may consider the reaction of an infant restrained who is normally allowed freedom of movement. This restraint often produces anger and often vigorous physical reaction. To children and adults lack of freedom to make choices, to move about may cause a similar reaction.

To Belong - In subhuman organisms to belong to a group offers security that isn't available to the single organism. A member of a pack, a covey or a school is afforded protection that is not available to them alone.

To Be Secure or Free of Anxiety or Fear - While related to the above one thinks of being able to predict or to be able to plan on their environment consistency brings a secure feeling to the child. Even a consistently poor environment for children somehow is better than an intermittently fickle environment.

To Be Wanted or Needed - To be wanted or to be needed boosts ones self-concept which in turn may help a child to exert some effort academically even knowing he or she may fail. Otherwise they may find no reason to try.

To Be Recognized as an Individual of Worth - It would be desirable if every child could be best in academic areas, in sports and in popularity. We know this isn't possible but it is possible to recognize certain skills, behaviors or attributes common to a child that are worth mentioning or recognizing.

All of the above can produce one of two basic emotional states if these needs are not met. The result may produce (1) anger or (2) fear (anxiety) and may manifest itself by aggressive behavior, withdrawal or basically immobilize the child involved.

By understanding the environment surrounding the child we can begin to hypothesize what the child feels as he relates to his environment. These feelings may or may not manifest themselves in acting out behavior but the feeling, the need or the press will be present to a greater or lesser degree. For example, a boy has 3 older brothers and is dominated by them: allowing him little freedom of choice; allowing him no opportunities to compete successfully with them. He is, in general, "put down" by his older brothers. It would be an unusual child who wouldn't come to school ready to assert himself as an individual with "a right to be free and to feel adequate attitude". The model of behavior this child may very well use is the one he has observed his brothers using i.e. to subdue or harass other children. The desire to act out in this way exists in most children. However, some children may simply accept the idea that they don't amount to much, and while they would like to act out, can't muster the secure feeling to allow themselves to do it. A child like this may (continue to) be withdrawn and exert considerable energy in attempting to resolve this internal conflict and thus be ineffective in his social adjustment and academic learning. While perhsps threatening to the teacher, the acting-out child may be making the better of the two adjustments. As it stands for the withdrawn child, there is no relief in sight and the situation, with time, may become unbearable for the child.

An informal discussion with the parent(s) will usually reveal this kind of relationship in the home. A simple appeal to the older brothers by the parents often will ease the situation. This is the best solution to the problem but if it isn't possible to change the situation at home then we must try to provide the boy with needs satisfaction at school. We can provide situations where the child can choose what he wants to do. We can find ways to allow him to feel better about himself. At first it may be found that the child over-reacts to this regime but this over-reaction will soon subside.

One must always consider the internal state or condition of the child. It is necessary to again project yourself into the nature of the child to understand the child's interaction with the environment.

Let's consider a truly gifted child who seems to have inferior feelings. The internal state or condition is the superior functioning of the central nervous system in matters of reasoning and all academic skills with a feeling of always being successful. This is generally admired by teachers, parents and peers. However, some peers are threatened by the inability to compete with this child in the classroom. Thus, on the playground the child is frequently teased by other children because she can't hit a ball. This child may have spent more time reading and didn't develop good motor skills because she found being informed more interesting than playing ball. This child had become habitually successful only to find she is a failure in sports. She expects to be successful in everything she attempts. There are two possible ways she can react to this situation. She can withdraw from sports or she can spend more time and effort pursuing it at the risk of the ridicule. While an American value is to be well rounded this may not be possible or even desirable for everyone.

After a discussion of this child's "problem" with her and if she wishes to pursue the challenge of athletics, a recommendation would be to learn some fundamentals, let's say of baseball, while insulated from the group ridicule. She might learn how to bat with her father, her mother or a professional. She might learn to catch a fly, a grounder to her left or her right. She can cognitively learn to anticipate the defensive play with people on bases with 2 outs or no outs or other situations without playing the game directly.

Possibly a discussion of individual differences by members of the classroom and the values of people might help to relieve the situation.

Children who have a specific learning disability may be mystified by their ability to do grade level work in spelling and arithmetic but find after 4 or 5 years they still are unable to read at a primer level.

The internal state or condition doesn't allow this child to read at grade level with the present teaching methods and materials. The attitude of this child about himself and any confidence he has in himself that he can read better is largely dependent on how the human environment has behaved toward him with his disability. Some peers, as well as professionals, relate the condition as equal to being mentally retarded and let him know this verbally or by nonverbal ways of communicating. This may result (due to the physiological condition) in his not being very secure, not free to do as he wishes, not feeling he belongs to the group and even not wanted and certainly not recognized as an individual of worth.

Hypothesizing that all of these conditions exist, what can be done to satisfy the above needs? Well, it probably isn't possible to change the child's physical-physiological condition. It is possible however, to examine carefully the abilities the child has and doesn't have to read. Let's say he's had only phonics and it is found that his auditory attending, discrimination and memory are very poor. Yet it is found that his visual attending, discrimination and memory are intact. Recommending a reading method better accommodating his abilities may cause him to read better and as a result improve his ability to meet most, if not all, of the other needs.

If this isn't possible, it is still necessary to try to find ways to help the child meet these needs. For a few children it may not be possible to help them improve their reading even with special help after careful diagnosis. To accommodate the disability it may be necessary to find other ways for him to gather information.

Listening to tapes of his social studies text or current events may help him be able to discuss the content in class. Taking examinations with the questions presented to him orally may help him meet all or most of his human needs. Again, class discussions of individual differences may allow the other children to better accept this child though he continues to be somewhat different.

Hyperactivity is an internally driven need to be active. These children are usually thought to be inattentive. It is true they don't attend to any one task very long but they are not inattentive. In fact, they attend to everything about them.

This child is least appreciated because he or she is thought to be willful and defiant. They often threaten the feeling of adequacy of the parents who, in desperation, try force or punishment to no avail. This child then certainly feels he or she can't be worth much to receive so much scorn, or punishment from the parents. This feeling precipitates anger as the goal to fulfill need of the child is obstructed by the stance of the parents. This now has become cyclic and there is no end in sight.

The situation doesn't differ at school in that the child can't settle down to a task thus does poor academic work. In addition to being a management problem, he isn't able to do the academic work either. The child feels inadequate, of little worth, unwanted and unable to "belong" to any group and thus may well be anxious, as well as cause his teachers and parents to be anxious.

There has to be some kind of intervention to terminate the cyclic nature of this situation. The first thing one thinks of is what can be done for the child to cause him to be less active. Well, the use of the amphetamines, such as Ritalin or Cylert, prescribed by a physician, might be considered. Some children benefit from this medication and thus the cyclic nature of the problem, is interrupted allowing the parents and others to "like" him or her better. The child becomes less threatening to others at home and school.

But what if the child is unable to benefit from medication or diet or can not be allowed to participate in this medical treatment for some reason? Well, the only thing left is to try to help the child develop some internal controls over his hyperactivity by modifying his environment.

One would want first to establish what this child wants to do or have badly. Then identify when he is less active during the day. Next a check could be made of about how long he can stay on a particular task during his best period of the day. Try lengthening this time requirement for attending to the task by a few seconds before giving a reward such as allowing him to pursue an activity of his choice. In some instances allowing him to be free in his activity (even hyperactivity) for a short period may be his reward.

This may not do it for all children but may for most. Very gradually then the quiet time or goal directed activities are increased until the child is less active, more responsive to his or her environment and able to better meet his or her needs. This in turn allows people to be more kind and accepting which provides more incentive for the child to be less impulsive and/or hyperactive.

The realization that the child is not simply strong willed and defiant is an important step on the part of professionals and parents in helping this child better manage himself or herself.

Some professionals are natural situation analyzers. Other must force themselves to think in terms of the child's needs rather than think how threatening the child is because he isn't learning or because he is acting out in class. There is ample evidence that an understanding teacher with compassion who is unthreatened by the situation is a far greater aid to learning than a highly specialized learning disability specialist who may understand but has no compassion for the child.

ELEVEN

DELIVERING SERVICES:

PREPARING AN INDIVIDUAL EDUCATION PLAN (IEP)

SELECTING MATERIALS TO FIT THE LEARNING STYLE

DELIVERY OF SERVICES

This section was designed to assist you in planning and implementing an educational program for a handicapped learner. This section attempts to:

a. provide a summary of background and legal information regarding delivery of services to handicapped students;

b. provide a practical step-by-step guide for writing individual education plans (IEP's);

c. demonstrate the role of appropriate planning in relation to assessment and actual service delivery;

d. help in the selection of appropriate techniques, strategies, and materials to fit the learning strengths, needs, and interests of the handicapped learner.

94-142 AND YOU

In November, 1975, the Education for All Handicapped Children Act (also known as Public Law 94-142) was signed into law. This law became effective in October of 1977 and has important implications for children who are handicapped and for their parents. This law: (1) requires states to provide special education and related services to children with special needs, (2) provides financial assistance to states and local school districts as they develop appropriate services, and (3) establishes certain procedural safeguards for the protection of the rights of these children and their parents.

The law is very explicit in its requirements. To be eligible for funds under this law, the state and the local district must demonstrate compliance with these requirements. You are wise to be familiar with the major provisions of this law as it may relate to you.

A. Full services: the guarantee of a "free appropriate public education" to all handicapped children. This provision calls for services for ages 3 through 21 by September, 1980.

B. Least restrictive alternative: participation in programs with non-handicapped children as much as possible and as appropriate. The familiar term "mainstreaming" may apply here.

C. Non-discriminatory testing and evaluation: selection and administration of racially and culturally non-discriminatory evaluation techniques. This provision eliminates the use of a single test or procedure as the sole determinant of a child's placement and/or program.

D. Due process safeguards: protection of the rights of handicapped children and their parents in any matter concerning identification, evaluation, or placement. These include:

- prior notice before the child is evaluated or is placed in a special program;

- parental access to relevant school records;

- an opportunity to obtain an independent evaluation of the child's special needs;

- an impartial due process hearing to challenge any of the decisions made;

- the right of the child to remain in current placement (or, if trying to gain initial admission to school, in the regular school program) until due process proceedings are completed;

- the designation of a "surrogate parent" to use these safeguards on behalf of children who are wards of the state or, whose parents or guardians are unknown or unavailable.

E. Individual educational plans: a written statement of the educational plan for the child evaluated as handicapped. This plan must be reviewed at least annually and records of these plans must be maintained by the local school district. Parents, teacher, and a designee of the school district must be involved.

F. Personnel development: the training of general and special education teachers and administrators to carry out the law.

G. Participation of children in private schools: provision of free special education and related services to handicapped children as placed in or referred to private schools by the state or local district to fulfill the requirements of the law.

Much of the burden of compliance with 94-142 and the Oregon Administrative Rules will not rest upon you. Such requirements as formal policies, provision of service, procedural safeguards, and other legalities should be handled at the administrative level. Your area of concern will be the actual content of the program plan - is this plan appropriate to the needs and abilities of this particular and unique student.

This chapter will be devoted to making it easier for you to plan and deliver appropriate educational programs for the handicapped child with whom you will be working.

NECESSARY CLARIFICATIONS

If you will remember, one of the key provisions of PL 94-142 is the development of an individual education plan for the handicapped student. This is where you become involved.

This provision quickly raises three questions:

1. What is an IEP?
2. Who is handicapped?
3. Who develops IEP's?

According to commonly agreed upon interpretations of both state and federal regulations the answers to these questions are as follows:

1. An IEP (Individual Education Program) is a written statement of a specially prepared and individually tailored educational "game plan" for a handicapped student.

2. In Oregon, a handicapped child includes "anyone under 21 years of age who requires special education in order to obtain the education of which they are capable" (Senate Bill 38 amending ORS 343.035). To receive special education and/or related services under 94-142 the child will need to meet the eligibility criteria* in one of the following categories:

    1. Blind
    2. Partially sighted
    3. Deaf
    4. Hard of hearing
    5. Speech & language impaired
    6. Physically handicapped or chronically ill
    7. Specific learning disability
    8. Emotionally handicapped
    9. Mentally retarded
    10. Pregnant

    *The eligibility criteria for each condition are detailed in the appendix section at the end of this chapter.

Most of the handicapped children you will see in your classes will be speech and language impaired, learning disabled, mentally retarded, and/or possibly emotionally disturbed. If you are a classroom teacher, you will probably not be deciding whether a child is handicapped. Labeling a child as handicapped requires specific kinds of evaluations by specific specialists and you will want to request their input. If you feel uncertain about any child, ask for help.

3. Development of an IEP is done by a placement committee which must include

    (a) a parent;

    (b) the regular teacher (that's you);

    (c) a representative of the local school district or agency (other than the teacher) who is qualified to provide, or supervise the provision of, special education;

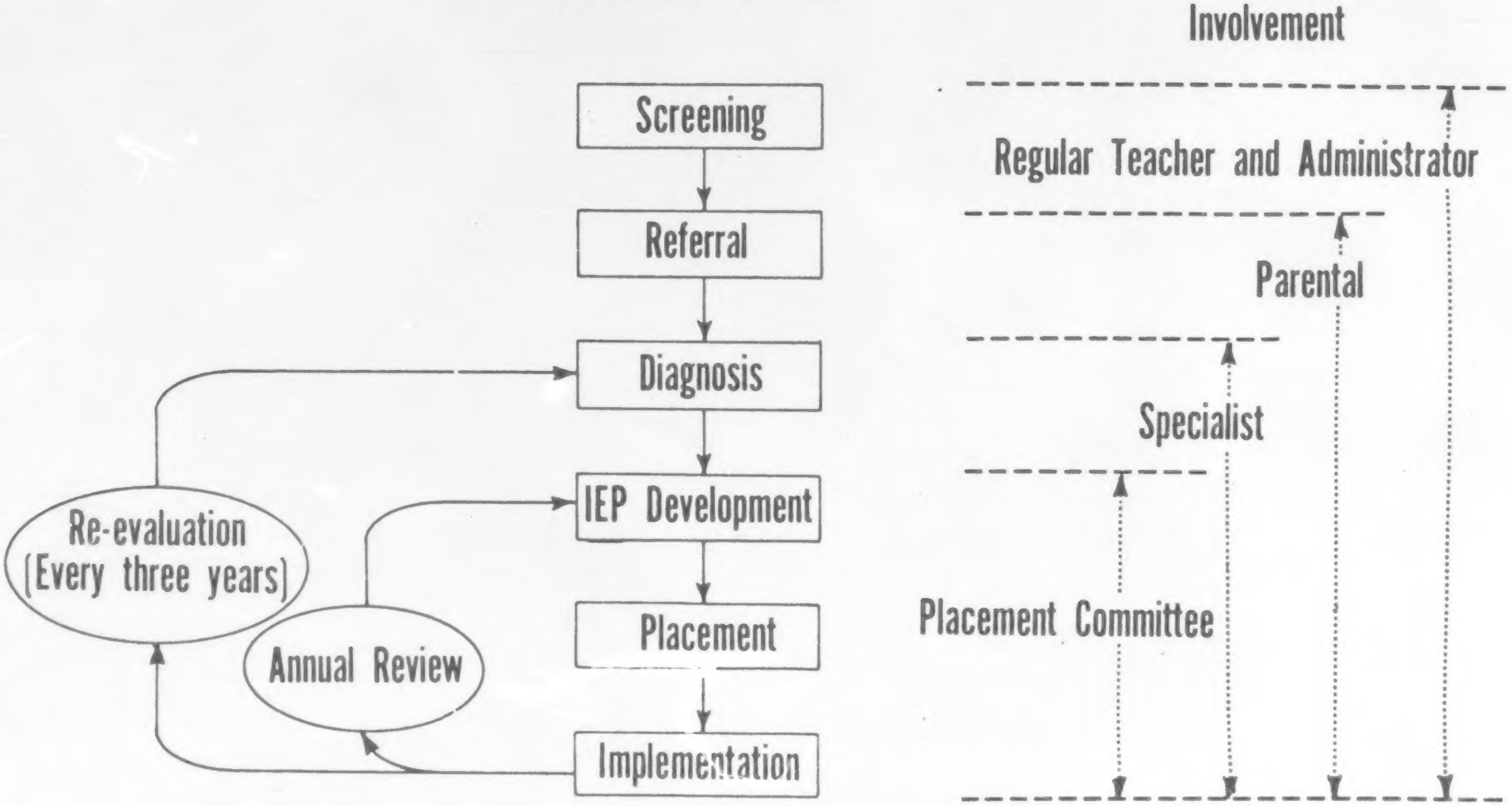
(d) for the first evaluation, a member of the evaluation team or someone who is knowledgeable about the evaluation procedures used and is familiar with the results.

It is possible that other persons may be involved at the discretion of the parent or agency, and even the student may be involved if that seems appropriate.

The individuals listed above are required to have input, but as you may have deduced by now, you and the specialist(s) will have done most of the work - gathering information, looking for appropriate placement alternatives, deciding on the best methods, materials, and management. BUT maintain an open and flexible attitude when involved in an IEP development meeting. You will want everyone, especially the parent, to know they made a contribution to this plan.

The following flow chart displays the place of IEP development in the total service delivery process and indicates the amount of involvement for administrator, parent, regular teacher, and specialist.

INDIVIDUAL EDUCATIONAL PROGRAMS
A DELIVERY PROCESS



Involvement

Screening

Referral

Diagnosis

IEP Development

Placement

Implementation

Re-evaluation (Every three years)

Annual Review

Regular Teacher and Administrator

Parental

Specialist

Placement Committee

DEVELOPING AN IEP

In developing an IEP for a specific child, it is best to take the path of least resistance; that is, complete the easy and/or required items first. After you fulfill the requirements, you may or may not feel the plan is adequate for your situation. Always add other information as it proves most helpful to you, the implementer, and most beneficial for the student for whom you are planning.

First, let's practice writing the required parts of an IEP, then we can explore other information you may wish to add.

A. REQUIRED CONTENT

Before you can sit down and write any plan, you will need to know the requirements of the law. The following required contents description is quoted directly from the Federal Register of August 23, 1977.

121a. 346 Content of Individualized Education Program

The individualized education program for each child must include:

(a) A statement of the child's present levels of educational performance;

(b) A statement of annual goals, including short term instructional objectives;

(c) A statement of the specific special education and related services to be provided to the child, and the extent to which the child will be able to participate in regular educational programs;

(d) The projected dates for initiation of services and the anticipated duration of the services; and

(e) Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved.

Sound complicated? No cause for panic. We will take one item at a time. The order of the items is not as important as the information you write within each item. The quality of the plan will depend upon how well you have been able to gather information on this student, not upon the order in which you fulfill the requirements. There are as many IEP forms and as many ways of fulfilling the requirements as there are local education agencies. (There are three examples at the end of this chapter.) Don't become confused by the styles of others. Simply focus on what you must include, then add items you find useful.

As you read through the following steps, you will find several written examples of each requirement. Remember - this is not necessarily the best order in which to proceed nor are the examples necessarily the only ways in which to write.

Ready?

STEP 1: A STATEMENT OF THE CHILD'S PRESENT LEVELS OF EDUCATIONAL PERFORMANCE

If you have done a good job of gathering information about this child, listing present level of educational performance will be a piece of cake for you. If you have measured where this student is operating, you have only to state what you have found.

First, list the area of evaluation. You will be mostly concerned with academic achievement, but may want to assess and/or provide service in any of these areas:

A) Academic achievement: It is best to break this area down into more specific skill areas, such as:

- word recognition, reading comprehension, spelling, arithmetic computation, and so on depending on the child's needs.

B) Social adaptation: personal awareness and social relationships.

C) Vocational/prevocational skills: work habits, attitudes, job skills work experience and placement.

D) Psychomotor skills: motor development skills, physical fitness.

E) Self-help skills: eating, dressing, personal hygiene.

F) Other: communication skills, etc.

You need list only the areas of concern and for which you are going to provide service. As you can see, a child may have assessments in a number of areas, or perhaps only in one. List those target areas specifically.

Secondly, list the current level of function - your test and observation results. This may be grade level, a place on a skills list, time-baseline information, and so on.

Third, be sure to list your evaluative instrument whether it be formal or informal. List the name of the test, the name of the skills list, the time length and so on.

When you have listed (1) area of evaluation, (2) test or evaluation results, and (3) the instrument used, you will have a statement of present level of educational performance which may look like one of these:

. Word recognition: 2.5 grade equivalent on Wide Range Achievement Test.

. Arithmetic achievement: KeyMath total test: 4.9 grade equivalent
multiplication: 3.2 grade equivalent
division: 1.4 grade equivalent
money: 1.8 grade equivalent

. Phonic skills: has mastered 5-1 through 5-7 and P-1 and P-2 of Croft Skills List.

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- Social adaptation: physical contact with other children 15 times in 10 minute morning recess.
- Articulation: misarticulates (r) in final position on PAT.

STEP 2: STATEMENT OF SPECIFIC SPECIAL EDUCATION AND RELATED SERVICES* TO BE PROVIDED

After examining the needs of this student, make a decision on how those needs will be met. What will this student be doing that the other students are not usually doing? What special placement or related service will this child receive? To this statement, add:

STEP 3: THE EXTENT TO WHICH THE CHILD WILL BE ABLE TO PARTICIPATE IN REGULAR EDUCATIONAL PROGRAMS

For how much of each day or week will this child be participating in activities with regular students in regular programs.

When you combine steps 2 and 3, you may have statements such as:

"Full participation in regular class except for speech therapy 4 days per week for 25 minutes per day."

"75% participation in regular program; 25% in resource room with learning disabilities specialist for reading."

"Full participation in regular program except special physical education three days per week, 40 minutes per day."

"80% participation in resource center, 20% participation in regular program (for music, art, physical education)."

"Regular program 3 hours per day, resource room 2 hours per day for reading, spelling, and arithmetic."

"Full participation in regular program; one-to-one session with aide during math class two days per week."

OR - however else you wish to state this item.

STEP 4: ANNUAL GOALS

By definition in educationalese a goal is a general statement of some all-encompassing effort being undertaken. Usually a goal is stated in terms not readily measured but rather vague, general, and broad, such as:

To learn to read.

To increase addition skills.

To improve expressive language.

To listen better.

To learn to follow directions.

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*A definition and listing of related services is included in the appendix.

Sounds wonderful but what does that tell you, the teacher, who is responsible for implementing this program? You know he needs to learn to read, but are his needs in decoding skills, in sight vocabulary, or in reading comprehension? It's obvious she needs to learn to follow directions, but are we talking about oral directions or printed? Those broad statements are not too helpful to your instructional program, are they?

Well, to make this IEP more utilitarian, let's add two more requirements to this step and take care of all of them at once.

STEP 4½: APPROPRIATE OBJECTIVE CRITERIA AND EVALUATION PROCEDURES

By merging these requirements we have simplified your life and have changed the general annual goal into a specific and measurable statement which is now more of a long-term objective.

In step 1, you stated WHERE THIS CHILD IS; now you will decide WHERE THIS CHILD IS GOING.

Setting specific and measurable goals for an entire school year can be painful and frightening - but only if you let it be so. It would be easy to become paranoid about goal-setting. For example, if you set goals too high and they are not met, doesn't that make you look bad --- won't the parents be upset --- won't it be defeating for the child? On the other hand if the goals are too easily met, won't time be wasted which could otherwise be spent in making faster progress?

Rather than letting the IEP run (and ruin) you, remember that one of the key features of an IEP is evaluation - an open invitation, no, DEMAND for change if appropriate. The reason for making measurable goals and objectives is to insure that everyone can see movement off the starting point and to make certain that something is really happening in behalf of this child. While this appears to be a definite step toward accountability, the law says nothing about an IEP being a legal binding contract. As it stands now, this plan is simply an assurance that there are specified goals for this child and that he is not just passing time in a special program.

Writing specific annual goals (or long-term objectives) will be much less threatening and painful if you follow these substeps:

A. WRITE GOAL AREA: in what specific areas will this student be receiving service? Look back at your "PRESENT LEVEL" and "SPECIAL EDUCATION" statements and list the priority areas, such as:

Word recognition
Arithmetic computation/addition
Social adaptation/physical contact on playground
Articulation /r/

B. LIST DIRECTION OF CHANGE: are you going to increase or decrease the present level? In most areas, you want to improve knowledge and skill by increasing the present level, but in some cases, particularly behavior, you will measure improvement by decreasing the present level (hitting, jumping out of seat, and so on).

C. LIST EVALUATIVE PROCEDURES: what tests or observations will you use to assure that goals are being met? The best way to operate here is to select the same measurements you used in finding the present level. If you used the pre-primer Dolch list, use it again. If you took a ten minute time sample and counted physical contacts, take another ten minute sample of contacts. The most important activity is to measure again what you measured prior to placement in the program. You would not check the growth of your bean plant with a ruler in June and with a bathroom scale in July and expect to be able to make a reasonable statement on the amount of growth during the month. Likewise, you want to be certain you can make a reasonable and sensible statement of growth amounts for each goal area of an IEP.

D. LIST GOAL CRITERIA: To what level do you wish to increase or decrease the present level? This is the most difficult step as it raises all of those apprehensions again. How can you be certain the criteria is appropriate?

One of the most useful (and later, most dramatic) techniques for making appropriate decisions on goal criteria is to check on the student's rate of learning prior to entry into the program, then seek to increase that rate. This is done by dividing the present level of skill by the time (number of months or years) in school and expressing the quotient as a decimal or a percentage.

$$\frac{\text{present level}}{\text{no. of mo. in school}} = \text{rate of learning}$$

For example, if Susan has been in school for 5 years and her ability to recognize words has been assessed at a 2.5 grade equivalent, she has been learning words at the rate of half a year per year or at 50% of the normal rate (100%). When her program is changed, we would hope to improve that learning rate. If she is of normal intellectual ability (and the program is appropriate), she should be able to progress at a normal rate (100%), gaining one month of skill for every month in the program. This means that by the time Susan has completed 6 years, she should be able to recognize words at a 3.5 grade level. That is very reasonable and in fact, many children will increase their rate of learning to even greater extents.

NOTICE: We did not say Susan would be at grade level by the end of the year. Progressing 4.5 years in one year is not reasonable in this case. That would be a learning rate of 450%, and a 900% increase!

Okay, now that you know how to calculate learning rates, you can make some reasonable predictions and write some appropriate goal criteria. When you list the goal area, the criteria, and the evaluative procedures, you may have statements such as:

- Susan will be able to recognize words at a 3.5 grade equivalent on the Wide Range Achievement Test.
- Given the KeyMath money subtest, Roger will score at a 3.7 grade equivalent.
- In a ten minute sample during the morning recess, Sara will have physical contact with other children 5 or fewer times.
- Annette will have completed mastery of Croft phonic skills through 5-24 and P-10.
- Given the PAT, Roy will correctly pronounce the final /r/ 9 times out of 10.

There! You did it! You have written an annual goal, with evaluative procedures and objective criteria. You know where this student started and where he is headed. This is a good time to set some dates. Go to

STEP 5: EVALUATIONS SCHEDULES

and

STEP 6: PROJECTED DATES FOR INITIATION OF SERVICES AND ANTICIPATED DURATION OF SERVICES

When will the special services begin? About how long will the services continue? When will you check to see that the objectives are being met?

The law requires written parental consent prior to special placement, and you will want to begin the services as soon as possible following the development of the IEP. Enter the first possible date.

The law also requires that the IEP and the placement be reviewed and revised on at least an annual basis.

When you look back through the required content, you will notice the absence of only one item, short term objectives. Proceed to the next step.

STEP 7: SHORT TERM INSTRUCTIONAL OBJECTIVES (AND EVALUATION SCHEDULE)

There is a good reason for leaving the discussion of short term instructional objectives until this point. The recommended procedure is to develop several short term instructional objectives for each annual goal during the meeting with the placement committee. The truth of the matter is that these objectives will more than likely be modified and/or actually written by the person who is going to be implementing each goal. It is often difficult to write short term objectives for someone else to implement.

A short term objective is a statement of who will do what under what conditions to what degree of success. Like a long term objective, a short term objective must be measurable, must have an evaluative procedure, and must have objective criteria. It is also a good idea to set a date for checking on the first stated objective.

Unlike the long term objective, the short-term objective can be varied in activity. That is, in order to increase Susan's word recognition skills to grade 3.5, we would not give her a Wide Range Achievement Test every day. We would look for a variety of instructional activities to insure that she can recognize words in a variety of presentations so that when she is given the WRAT word list, she will be able to score at least at a 3.5 grade level.

Specific components of short term instructional objectives are

1) The activity (performance or behavior):

What is the student to do.

Be certain this is a specific performance, such as

- say aloud
- point to
- write
- circle
- throw
- remain seated
- and so on

2) The conditions under which the performance will occur: what are the circumstances?

Again, be specific, such as:

- given 50 addition facts
- given 250 sight words
- without cuing
- using a piece of chalk
- given a rubber ball
- given a list of 10 /r/ words
- in a ten minute time sample
- and so on

3) The criteria (level or standard) of satisfactory performance: how well is the student expected to perform the activity?

Specify:

- with 90% accuracy
- 4 times out of 5

- in at least 7 consecutive correct trials
- with no more than two spelling errors per page
- as judged by a qualified observer
- never (or always)
- and so on

As you can see, it may be difficult to write accurate short term objectives prior to entering the student in the special program. Stating reasonable expectations for the student will be difficult until we know how much he can handle under the new circumstances.

Nonetheless, when you combine activity, conditions, and criteria you may have objectives which read:

- Given the first 100 Fry Instant Words, Susan will say them aloud with at least 95% accuracy.
- Given a handful of coins, Roy will return the correct change from a dollar in four consecutive oral problems.
- Following a teacher model, Pamela will correctly pronounce all of a list of twenty words having /r/ in the final position.
- In a one-minute time sample on morning recess with one reminder, Sara will physically contact no more than one child.

When you have completed at least one short term objective for each goal, you have completed the work of the placement committee as required by law. However, there are other considerations you should know about. Continue on to those other important items in section B.

B. CONTENT NOT REQUIRED, BUT USEFUL

The required sections of an IEP are commonly referred to as the Total Service Plan (TSP). This name indicates the importance of summarizing all of the services this student will receive. In an effort to make certain this plan really is carried out, most IEP forms have as part of their total service plan form, some or all of these useful, but not required items.

1. A listing of the persons involved in the development of the IEP.
2. The handicapping condition.
3. The person responsible for instruction in each goal area.
4. Identifying information including district of residency and place where service is received.
5. A place for the parent to give consent for placement.
6. A listing of the student's strengths and weaknesses.
7. A place to check whether this is an initial placement or a review.

If you feel there are other items you wish to include at this point, you should do so, but generally you will now have included all of the required and necessary information for an individual education plan for the student. In the appendix section of this chapter you will find three examples of IEP forms used by various school districts in Oregon. Notice the variety in format. It may be a good idea for you to actually try several formats to evaluate which one can best be adapted for your own situation. Again, remember that the form is secondary in importance to the content. Always check to see that you have completed the required items first before adding any other information.

PLACEMENT AND IEP IMPLEMENTATION

Following the development of an IEP, the student is placed in the program and the IEP is implemented. That means beginning instruction - teaching. If you look back over the IEP, you will notice that it simply states the program and the program goals. It says very little about how those goals will be met. Oops! Now what happens? How can we be assured that this student will actually be taught?

In order to handle appropriate program implementation, most IEP's include a second level of planning, called the individual implementation plan, or IIP. These are plans written by the instructors who are actually carrying out the IEP--the persons responsible for seeing that the goals are met.

There are as many IIP's as there are annual goals on the required section of the IEP. For example, if Roy will be receiving only articulation therapy, he will have only one IIP, written by his speech therapist. But, if Sara has goals in word recognition, reading comprehension, and social adaptation, there would be three IIP's written for her.

Each IIP begins by stating the annual goal, followed by some short term objectives--identical information from the total service plan. The IIP then goes on to list such items, specific strategies, materials and activities which will make up the instructional program to meet the short term objectives and eventually the long range goal.

Since the IIP will provide a planning and monitoring record for a much shorter time span, it will be the key to determining rate of progress toward the annual goal. The IIP presents itself as the ideal document in which to record a number of important, but frequently overlooked, variables which may influence the performance of the student. If these variables are carefully recorded, each can be altered until the instructional plan appears to fit the student and his particular needs.

An IIP should be written to encourage this kind of modification. In fact, the Oregon State Plan recommends a 20-day period of instruction during which the implementer may adjust these variables for optimum success.

The key word in making these adjustments is FLEXIBILITY. It is so very important to remember that no one technique or material will work with every child nor will the same techniques always work with the same child. The extra time it takes to be flexible and to plan especially for the different learner will seem much less as the child begins to experience greater success and to

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learn at an improved rate.

It may be difficult at first to determine what variables to record, how much to write what to review, how often to evaluate, and so on. You will want to have in the IIP a useful tool rather than a burdensome amount of paperwork or an empty and meaningless scrap. You will need to adapt the IIP to your own particular style of planning and teaching. The old favorite rule of thumb regarding bathing suits seems applicable to IIP's--long enough to cover the subject but brief enough to be interesting (or in this case, functional). In other words, you will want to achieve a balance between what is appropriate and what is feasible.

The following items are some variables which, although not required, are highly recommended to be recorded in the implementation plan. As we explore the possibilities within each variable, continue to think with flexibility. The ideas expressed here should serve only as a basis for your further additions, improvements, embellishments, and adaptations.

1. LEARNING ENVIRONMENTS

Under what conditions will this student be performing? We must be sensitive to one child's feelings toward being "singled out" versus another's joy at receiving special attention. That is, if a child resents being removed from the regular classroom, he may actually make better progress in the regular setting with some assistance than in a resource or itinerant setting which would appear to be better suited for his needs. Remember, flexibility!

Some environmental possibilities within the classroom or resource room are:

- large group with adult (usual classroom)
- large group
- small group with adult (like DISTAR)
- small group
- one to one with adult (teacher, clinician or aide)
- one to one with peer (older or same age student)
- student alone (study carrel, isolated)

If you record the setting (required) and the learning environment (not required) you have a record of two often important factors which may be varied if necessary.

2. TEACHING STRATEGIES

What kind of instructional modes are used with the student? Too often we rely too heavily on one strategy and completely ignore other often more preferable alternatives. Again, in selecting and recording appropriate strategies, the strengths and weaknesses of the learner must be considered.

- Verbal instruction is the most widely used (and often abused) teaching strategy. Verbal instruction means telling the learner what you want him to know.

- Modeling is the strategy used very frequently by speech clinicians in articulation therapy. The instructor says or does something, the student repeats or copies the instructor's model.

- Manual guidance can be seen widely in physical therapy settings with the instructor actually moving the student's body parts through appropriate sequences. Manual guidance includes grasping the student's hand and guiding the held pencil into marking circles or correct letter formations.

- Self-talk is a technique sometimes used in language therapy. In this kind of teaching, the instructor performs some action meanwhile saying aloud what he is doing. This is not unlike the talking we learned to do while performing certain arithmetic computations, such as "put down 4, carry 2," and so on.

- Verbal cues imply previous learning and task generalization. Here a word or two is spoken or written which prompts the student to respond. This could be a hint, a direction, or a set for readiness to respond.

- Non-verbal cues are cues which do not use words, but rather employ gestures, motions, or noises (such as a bell) to prompt the learner.

- Visual cues are frequently the most important for the different learner, as they provide a reference point when memory fails. Visual cues are such things as pictures, diagrams, charts, lists--anything the learner can look at in order to learn.

You can see how some strategies are more appropriate for some learners than others. If these strategies are combined and those combinations are recorded, necessary adjustments may be made with greater ease.

3. ACTIVITIES AND RESOURCES

What is this student required to do in the daily program? Activities usually imply the use of materials which constitute a giant variable discussed separately. However, it may be important to record the type of performance required from the student when presented stimulus material. Some examples are:

- repeat orally
- circle the answers
- write the words
- say aloud
- read silently
- point to
- listen and answer orally
- sing aloud
- say from memory
- color

- trace
- draw lines to
- type
- and so on

You may notice a similarity between activities and the "performance" part of short term objectives. You are correct. Again, these are important variables to document as they may give a clue to performance, or lack of it. For example, if at evaluation time the student is required to write words and he has had practice only in pointing to words, we may predict a strong possibility for poor performance. Be sure he has mastered skills in the appropriate performance mode.

4. MATERIALS

To what will the student be responding? This variable encompasses books, games, magazines, and educational media of all sorts including machinery.

The flexibility idea should really be exercised in selecting materials and resources. Publishers' representatives would have us think their company has just produced the perfect material we must have for that special student. The truth of the matter is, the specific material selected is much less important than the way in which it is used. Does that shock you? True. Many common ordinary classroom materials can readily be adapted for use with the different learner.

Basically, if you approach the material through the learner's strengths, interests, and abilities and if you stop badgering him with materials with which he has shown little improvement you are on the right track. Check the musty closets and the secret stashes in your school. Add your findings to those materials with which you are familiar and you are probably ready to go--if you are willing to be flexible in the way in which you present that material.

To make appropriate selections of materials and resources, you will want to consider two important factors: (a) the learner, and (b) the purpose for which the material or resource selection is being made.

A. The Learner

The importance of considering the learner in material selection cannot be overemphasized. These points should be kept in mind:

- strengths and weaknesses
- preferred learning modality and/or learning style
- attention span and frustration level
- special interests
- materials used in the past and relative success or lack of success of those materials

B. Purpose

For what will this material be used? Is it:

- initial teaching?
- drill or practice?
- reinforcement?
- purely entertainment?

Some types of media are better suited for carrying out specific learning objectives. The appendix to this chapter includes a table from Audiovisual Instruction (January 1967) which graphically summarizes research findings on the impact of certain types of media in presenting certain kinds of objectives.

In making materials selections, you will want to have a mental checklist to evaluate possible effectiveness. You may want to consider such points as the following.

- MODALITY: What modalities are needed to understand the material; what modalities are required to respond to or demonstrate knowledge of the content?

- CONTENT:
  --Skills taught
  --Word attack method (or math or spelling or handwriting method)
  --Order of presentation of skills (easy to hard)
  --Amount of material presented on each page

- CLARITY:
  --are directions clear and concise
  --are directions given in vocabulary at the same grade level
  --are good examples given
  --are tasks presented in a similar format for the student to learn the task

- LEGIBILITY:
  --size of print; style type
  --spacing

- ILLUSTRATIONS:
  --quality
  --are they complementary to the task
  --are they simple enough not to distract the student from the task

- FORMAT:
  --book, workbook, tape, printed cards, filmstrip, transparencies, filmloop and so on
  --expendable vs. permanent

- AIDS:
  --same word attack method, math method, spelling method
  --same vocabulary
  --same skills

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To help you in making specific material selections in subject areas, the chapters on reading, math, and spelling contain suggestions tailored for different learning styles.

If you feel there is no material available for teaching a particular student, you may want to develop some of your own materials. Games seem to be the most widely used teacher-made materials. Again, use the criteria for appropriate selection, remembering both the purpose and the learner.

The appendix of this chapter includes some suggestions for selecting and using games as well as a bibliography of materials containing games and other motivational ideas.

Generally, spend your time fitting materials and resources to the student. Too much time is wasted in trying to fit students into a program, often resulting in frustration for both student and teacher and slower pupil progress. Look for the most appropriate (and most feasibly managed) resources for the student to insure optimum success.

5. IMPLEMENTER

Who actually works with this student? This may seem like a ridiculous item to record and it may seem that there are no alternatives in who will implement the program. The truth is that the best materials in the world cannot teach. Only a person can effectively teach a child a certain skill. The personal contact for direct teaching is the most important factor in the program, so finding an appropriate implementer is crucial.

We can all remember a little character or two in our past for whom education seemed to be a constant battle, for one reason or another. Face it, personality clashes between student and instructor continue to be a reality.

That, however, is no longer an excuse for a child's lack of success. If all other variables have been adjusted and the child continues to respond unsatisfactorily, it may be wise for you to check out the implementer. Using both formal and informal observations, get a reading on the implementer's approach to the student. Watch for such things as:

- Enthusiasm--too much, too little
- Empathy for the child - not sympathy
- Genuine interest shown in the student and the lesson
- Appropriate pacing, sequencing, feedback, correction, reinforcement
- And so on

Look for things the implementer may be doing, consciously or unconsciously, to cause the student to respond, or fail to respond, in an appropriate way. After the implementer has had ample opportunity to change his/her behavior toward the student and the student continues to show little progress, you may want to search for alternatives in implementing the program. Often such simple changes as male to female (or vice versa) or old to young (or vice versa) or loud to quiet (or vice versa) or serious to joking (or vice versa) can make a gigantic difference in the child's willingness and/or ability to perform.

Explore possibilities in peer tutoring, volunteer aides and such other resources for warm bodies to help this child succeed.

IMPLEMENTATION — INSURANCE FOR SUCCESS

As you know by now, the teacher is the most important variable in providing for the different learner. It is the teacher who is the observer, the data collector, the assessor, the manager, and the challenger of the IEP. Because your role as teacher carries so many responsibilities, it may be helpful to think about some general considerations which may make your various roles easier, especially the "implementer" role.

An effective program centers on good teaching. Good teaching looks the same with all kinds of learners. Most teachers already know appropriate techniques and simply need guidance in applying them appropriately.

The following are some insurance markers for success - some hints for working with the different learner.

GENERAL INSURANCE

1. Work first of all on helping the student develop a good self-concept. Liking school is an important hurdle, and success makes school easier. Focus on the child's interest and abilities rather than on what he cannot or does not do.
2. Develop structure, but keep it simple. Be organized in the daily routine to provide a sense of security and predictability for the child. Be certain learning tasks are well organized for efficient presentation.
3. Teach directly to the problem and use direct instruction techniques. Remember that you are often providing associative devices which other children seem to have picked up automatically. Avoid relying on material to do the teaching for you.
4. Teach in a directive manner. Remember who is in control of the relationship. Avoid giving choices where there are no real choices.
5. Be certain tasks are in sequence and that assignments are practice of skill just learned, not something new. This means gearing independent work to the ability and development level of the child.
6. Provide clear positive feedback on a frequent basis. Immediate feedback and correction procedures are most effective.
7. Build in a rewarding reinforcing environment.
8. Keep good records of teaching activities and of pupil progress. Teach the student to chart his own successes.

SPECIFIC INSURANCE

When you have identified a student's preferred method of learning, you will want to maximize learning by being sensitive to those preferences and providing input in those modes. The following are suggested practices which emphasize a specific learning channel or a combination of channels.

HEAVY VISUAL EMPHASIS

1. Minimize oral directions. When they are necessary, give a cue for the student to look at you, such as a touch on the arm. Make certain your mouth is visible and that the directions are short, concise and easily followed.

2. Provide a visual reference point whenever possible. Showing is better than telling. Give directions in picture, rebus, or written form. If the student can read, write assignments on the board, or provide a list for the student's desk.

3. Use charts, graphs, maps, large pictures, filmstrips, movies and other visual media to convey information. Flashcards, opaque and overhead projector.

4. Avoid heavy reliance on verbal instruction and forget about tapes - unless you can provide a strong visual companion to the auditory component.

5. Use visual games or active games rather than those involving listening or speaking.

HEAVY AUDITORY EMPHASIS

1. Give instructions orally and have the student repeat them.

2. Let the student answer questions orally, including tests.

3. Use verbal mediation and verbal explanations for steps in problem solving, such as arithmetic operations.

4. Use music, rhythm, and poetry whenever possible.

5. Always provide auditory input for visual stimuli, avoiding silent filmstrips, and so on. Taped presentations are very appropriate.

6. Use word games and listening - answering games.

DELIVERING SERVICES — REVIEWING THE IEP

Since you were so careful in initial diagnosis and planning and since you were conscientious in documenting changes in program variables, the review of the IEP will be extremely easy for you. The areas you will want to consider on at least a yearly basis are:

1. Long term goals: were the long term goals met?
2. Placement: does the current placement continue to be appropriate or can this student exit to a different program?
3. Program adjustments: what adjustments need to be made in any of these items:
    - long term goals
    - time lines
    - short term objectives
    - activities
    - performance criteria
    - strategies and methods

The IEP review is really a reporting period to the placement committee - a report which displays to everyone what has been accomplished by and in behalf of this student.

When adjustments are made and recorded, the process of implementation starts once again.

APPENDIX

DELIVERING SERVICES

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RELATED SERVICES

94-142 draft regulations define related services as transportation and such developmental, corrective, and other supportive services as are required to assist a handicapped child to benefit from special education and includes:

- speech pathology and audiology
- psychological services
- physical and occupational therapy
- special equipment
- early identification and assessment
- counseling services for diagnostic/evaluation
- medical services for diagnostic/evaluation
- reader services
- volunteer services

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
1. Blind child	A blind child is one whose corrected vision in the better eye is 20/200 or less or whose visual field is restricted to twenty degrees or less.	1) The child shall be examined by an opthalmologist or optometrist licensed by a state board to verify: a) that the child's residual acuity is 20/70 or less in the better eye with correction; and b) that the child has received or is receiving medical treatment for an eye condition. 2) The school district shall substantiate that the child's academic functioning is below age and grade level.
2. Partially sighted child	A partially sighted child is one whose corrected vision in the better eye is 20/70 or less or who cannot function at an academic level commensurate with his/her mental ability because of an eye problem.	Same as blind.
3. Deaf child	A deaf child is one in whom the sense of hearing is nonfunctional even with a hearing aid and who is unable to understand speech and develop language successfully without specialized instruction.	1) The child shall have an average hearing loss in excess of thirty-five decibels (ISO) in the speech range (500, 1000, 2000 HZ) for the better ear after medical treatment. 2) The child shall be examined by a physician licensed by a State Board of Medical Examiners to verify the existence of a hearing loss; or whether the child has received or is in need of medical treatment.

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
4. Hard of hearing	A hard of hearing child is one in whom the sense of hearing, although defective, is functional with or without a hearing aid and who develops speech and language through hearing.	Same as deaf.
5. Speech and language is impaired.	A child is considered to be speech and language impaired when: 1) there is difficulty in one or a combination of the four areas of speech: articulation, phonation, rhythm, and symbolization; 2) the child's speech deviates from the accepted general developmental age norms; 3) the speech difficulties interfere with communication; or 4) the speech difficulties cause emotional stress.	1) The child shall be given an individual evaluation using diagnostic procedures and tests appropriate for determining that the child's deviations of speech and language processes are outside the range of acceptable variation within a given environment and prevent full social and educational development. 2) The school district shall have the child referred for a medical examination when: a) there is indication that a supportive diagnosis is needed; b) the child fails to make satisfactory progress in the remedial speech program; or c) there is evidence that the speech problem may be associated with a pathology that requires medical treatment prior to or in addition to the remedial instructional activities.

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
6. Physically handicapped or chronically ill	Physically handicapped children as defined or ORS 343.035(2) are children who are disabled by motor impairments or chronic illness which requires them to have home instruction, special transportation, special equipment or other specialized services to meet their educational needs.	1) The child shall be examined by a physician licensed by the Board of Medical Examiners for the State of Oregon to verify: a) that the child's condition is either permanent or is expected to extend over a two-month period; b) whether the child requires home or hospital instruction, supplemental classroom instruction, special equipment and supplies, special transportation, or other special education services. 2) When home or hospital instruction is to be provided, individual goals and objectives are to be compatible with those set up in the regular classroom or otherwise suitably designed to meet the child's level of functioning and specific physical needs. 3) Teachers of children who receive home or hospital instruction shall hold appropriate certification.
7. Learning disability	Learning disabled children are not mentally retarded, but show an inability to profit from regular classroom methods and materials without special educational help. They may be, or will become, extreme underachievers in reading, spelling, writing or arithmetic. This performance deficit may manifest itself in mild to severe difficulties with perception (the ability to attach meaning to sensory stimuli) conceptualization, language, memory, motor skills, or control of	1) The district shall obtain enough information to document a performance deficit in perception, conceptualization, language, memory, sensory-motor skills, or attention. Information may be obtained from any or all of the following: a) standardized tests of achievement or intelligence; b) standardized diagnostic tests of skills; c) informal tests and inventories (commercial or teacher made);

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
7. Learning disability (continued)	attention. The broad category of learning disabilities includes children described by such terms as extreme learning problems, dyslexia, brain injured, neurologically impaired or handicapped, minimal brain dysfunction, and educationally handicapped.	d) data from systematic observation. 2) The district shall develop an individualized instruction plan based on the strengths and weaknesses of the child as determined by the diagnostic study. 3) Consultation shall be held with parents before placing a child in an instructional program. 4) The medical examination generally required in determining eligibility of handicapped children for special education may be waived by the school district, but a medical examination is recommended when learning problems may be associated with neurological, vision, or hearing problems, or when after a period of special education help, the child has failed to make reasonable progress. 5) The district shall evaluate each learning disabled child as often as necessary but not less than once a year to determine the need for continued special education and to plan the nature of the child's educational programs.
8. Emotionally handicapped	Emotionally handicapped children require special education in order to obtain the education of which they are capable because they are socially or emotionally maladjusted to the extent that they cannot make satisfactory progress in the regular school program. These children, because of organic and/or environmental	1) Careful study of the child shall be made by qualified educational authorities with medical or psychological evaluation when appropriate. 2) The social and/or emotional adjustment problems shall have existed over an extended period of time and to such a degree as to significantly interfere with the child's educational progress.

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
8. Emotionally handicapped (continued)	influences, exhibit one or more of the following characteristics over an extended period of time and to a marked degree: 1) an inability to learn at a rate commensurate with their intellectual, sensory-motor, and physical development; 2) an inability to establish or maintain satisfactory interpersonal relationships with peers, parents, or teachers; 3) an inability to respond appropriately in day-to-day life situations; 4) a variety of excessive behavior ranging from hyperactive, impulsive responses to depression and withdrawal; or 5) a tendency to develop physical symptoms, pains, or fears associated with personal, social, or school problems.	3) The district shall develop an individualized instruction plan based on the case study of the child. 4) Consultation shall be held with parents before placing a child in an instructional program. 5) A medical examination is required in determining eligibility of emotionally handicapped children, except the district may waive the medical examination for children with mild behavioral problems as provided in ORS 343.227(1)(a). 6) Needed medical or psychological service should be provided concurrently with the special education services through the use of available ancillary services resources. 7) The district shall evalute each emotionally handicapped child as often as necessary but not less than once a year to determine the need for continued special education and to plan the nature of the child's educational program.
9. Mentally retarded	Mentally retarded children exhibit significantly subaverage general intellectual functioning existing concurrent with deficits in adaptive behavior, and manifested during the developmental period.	1) The school district shall provide an individual intellectual assessment using one of the following standardized intelligence tests: a) Stanford-Binet b) Wechsler Intelligence Scale for Children or WISC-Revised c) Wechsler Preschool and Primary Scale of Intelligence The examiner in consultation with the parents may use an alternative individual

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
9. Mentally retarded (continued)		performance test if deemed appropriate. Such tests, however, shall be appropriate to the child's spoken language, and shall take into account the cultural background and other factors which could invalidate a child's test performance. 2) Intelligence tests shall be administered by a qualified examiner. 3) Intelligence test results shall not be more than one year old at the time the child's eligibility is established. 4) Intelligence test performance shall be at least two standard deviations below the mean but no more than three standard deviations below the mean. 5) The school district shall substantiate that the child's academic achievement is below age and grade norms. 6) The school district shall conduct an assessment of the child's adaptive behavior to document whether there is consistent impairment of adaptive behavior in one or more of the following areas: a) Sensory-motor skills b) Communication c) Self-help d) Socialization Adaptive behavior may be assessed by using a specific scale such as the Vineland Social Maturity Scale, the American Association on Mental Deficiency Adaptive Behavior Scale Public School Verson, or the Gesell Developmental Schedules. 7) When a specific scale is not used, the district shall insure that nonspecific tests and the interpretation test

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
9. Mentally retarded (continued)		results relate to the cultural norms of the child's home and community as well as to the school culture and environment. 8) The child shall be examined by a physician licensed by a State Board of Medical Examiners to verify: a) whether there are any physical factors contributing to the child's educational problems; b) whether medical treatment is needed prior to placing the child in a special education program; or c) whether any other type of examination is needed. 9) The school district shall prepare a documented history of retarded overall functioning which summarizes all relevant, factual information obtained from family, development and school history to further support the child's need for special education.
10. Pregnant individuals	No definition given.	1) The individual shall be examined by a physician licensed by a State Board of Medical Examiners verifying the condition of pregnancy. 2) When home instruction is provided, individualized goals and objectives for the individual shall be compatible with those developed in the regular classroom. 3) Teachers of individuals receiving home instruction shall hold appropriate certification. 4) Nothing contained herein shall be construed to prevent individuals who are pregnant from electing to continue attending classes in the regular program.

FORM 14a

Initial Placement
Annual Review

INDIVIDUAL EDUCATION PROGRAM
PLACEMENT ACTION FORM

NAME______________________________ BIRTHDATE______________________________

ADDRESS______________________________ PHONE______________________________

SCHOOL______________________________ DATE OF MEETING______________________

DISTRICT OF RESIDENCY______________

In attendance at IEP Meeting: ____________________, ____________________,

____________________, ____________________, ____________________.

See attached pages for statement of current level of educational functioning, long term objectives, short term objectives and instructional strategies.

Special Education Services

1. Special Education Services to be provided. Entry Date____________________
   School________________ Program________________ Teachers________________
   Student's Program: Review Date________

2. Is special physical education programming required? ☐ yes ☐ no
   Describe program (if there are specific objectives include on attached pages).

3. Related Services
   - ☐ Speech Therapy (describe)______________________________
   - ☐ Physical Therapy (describe)______________________________
   - ☐ Occupational Therapy (describe)______________________________
   - ☐ Work Experience (describe)______________________________
   - ☐ Medical Service (describe)______________________________
   - ☐ Social Services (describe)______________________________
   - ☐ Transportation______________________________
   - ☐ Other______________________________

4. Describe and give time estimates of the extent to which children will participate in the regular program.

I/we have participated in the development of the IEP and have had the program explained to me and approve of my child's placement as described above.

______________________________ ______________________________
Parent's Signature Date

Oregon Eligibility Criteria

Handicapping Category	Definition	Eligibility
9. Mentally retarded (continued)		results relate to the cultural norms of the child's home and community as well as to the school culture and environment. 8) The child shall be examined by a physician licensed by a State Board of Medical Examiners to verify: a) whether there are any physical factors contributing to the child's educational problems; b) whether medical treatment is needed prior to placing the child in a special education program; or c) whether any other type of examination is needed. 9) The school district shall prepare a documented history of retarded overall functioning which summarizes all relevant, factual information obtained from family, development and school history to further support the child's need for special education.
10. Pregnant individuals	No definition given.	1) The individual shall be examined by a physician licensed by a State Board of Medical Examiners verifying the condition of pregnancy. 2) When home instruction is provided, individualized goals and objectives for the individual shall be compatible with those developed in the regular classroom. 3) Teachers of individuals receiving home instruction shall hold appropriate certification. 4) Nothing contained herein shall be construed to prevent individuals who are pregnant from electing to continue attending classes in the regular program.

FORM 14a

Initial Placement
Annual Review

INDIVIDUAL EDUCATION PROGRAM
PLACEMENT ACTION FORM

NAME______________________________ BIRTHDATE____________________________

ADDRESS___________________________ PHONE________________________________

SCHOOL____________________________ DATE OF MEETING______________________

DISTRICT OF RESIDENCY_____________

In attendance at IEP Meeting: ______________________, ________________________,

________________________, ______________________, ________________________.

See attached pages for statement of current level of educational functioning, long term objectives, short term objectives and instructional strategies.

Special Education Services

1. Special Education Services to be provided. Entry Date____________________
   School_________________ Program_________________ Teachers__________,________
   Student's Program: Review Date________

2. Is special physical education programming required? ☐ yes ☐ no
   Describe program (if there are specific objectives include on attached pages).

3. Related Services
   - ☐ Speech Therapy (describe)____
   - ☐ Physical Therapy (describe)______________________________________
   - ☐ Occupational Therapy (describe)__________________________________
   - ☐ Work Experience (describe)_______________________________________
   - ☐ Medical Service (describe)_______________________________________
   - ☐ Social Services (describe)_______________________________________
   - ☐ Transportation____
   - ☐ Other____

4. Describe and give time estimates of the extent to which children will participate in the regular program.

I/we have participated in the development of the IEP and have had the program explained to me and approve of my child's placement as described above.

_________________________________ ___________________________
Parent's Signature Date

INDIVIDUAL IMPLEMENTATION PLAN

Complete as many forms as required

Student's Name______________________________

Consideration should be given to academic, social adaptation, pre-vocational/vocational, psychomotor, and self-help skill

AREA______________________________	Current Level of Educational Functioning (include strengths and weaknesses)				
Long Term Objectives (Annual Goals)	Short Term objectives (including criteria)	Strategies (to be completed by teacher)	Materials	Start	Complete
Least Restrictive Instructional Environment:	Procedures for Evaluating Progress Toward Achieving Short Term Objectives:				

__ Initial Placement
__ Annual Review

ALBANY ELEMENTARY SCHOOLS
INDIVIDUALIZED EDUCATION PLAN
PLACEMENT FORM

Name ______________________ Birth Date ________ School __________ Date ________

Placement Committee: ____________________ (Parent), ____________________ (Classroom Teacher),

________________ (Principal), ________________ (Specialist), ________________ (Specialist), __________ (Other).

AREA[1]	PRESENT LEVEL OF PERFORMANCE	LONG TERM (ANNUAL) GOALS[2]	RESPONSIBLE PERSONS

Educational Services to be provided (describe with justification):

Special Education Services ____

Related Services ____

Physical Education Services ____

Extent of Participation in Regular Program ____

Date Services to Begin __________, Anticipated Duration of Services ______________, Date of Review (optional, not to exceed 45 days) ____________.

---

[1] To include academic achievement, social adaptation, pre-vocational and vocational skills, psychomotor skills, self-help skills, speech and language, and behavior as appropriate.

[2] Expected behaviors to be achieved by the end of the school year.

7/77

Quarter 1 2 3 4

ALBANY ELEMENTARY SCHOOLS

INDIVIDUALIZED EDUCATION PLAN

Name ______ ______________ School __________ IEP Beginning Date __________

Responsible Person/Title ______________ Projected Ending Date __________

Long Term (Annual) Goal ______________________________

			Pre		Post		------Objective Outcome------							
							Performance Decision							
Short Term Objectives/Evaluation Criteria	Review Date *	Materials/Techniques	Date	Score	Date	Score	No. of sessions	Objective met	Made progress	No progress	Carry over obj.	Alter objective	Drop objective	Explanation/ Comments

An IEP is to be written for each Long Term Goal. When responsibility for implementation is shared, separate IEP's will be written describing each person's responsibilities.

* Not to exceed 4 months.

Form #1

CENTRAL SCHOOL DISTRICT 13 J
INDIVIDUAL EDUCATION PROGRAM

1. Name ______________________________ Annual Review Date ______________
Last First Middle

Date: ____________ Referring Teacher: ______________________

Birth Date: ____________ School: ______________________

Child Study Team Members:

Name	Position	Name	Position

2. This child meets eligibility criteria for the following handicapping condition(s).

____

Summary (if additional space is required, use back of this sheet)

A) Is special physical education programming required? Yes ____ No ____
Describe program.

B) Are any related services required? Yes ____ No ____
Describe.

C) Are special instructional media and materials required? Yes ____ No ____
Describe.

D) Describe the extent to which the child will participate in the regular education program.

I have had the opportunity to participate in the development of this individualized education program for my child. I understand the reasons for the Special Education placement and have had my rights and responsibilities explained to me in my primary language. I understand the content of these ______ (indicate number) pages.

I approve of this individualized education program. ____________ check

I do not approve of this individualized education program. ________ check

____________ ______________________________
Date Signature of parent or guardian

____________ ______________________________
Phone Address

Form #2

3. Present Level of Educational Performance	Goal No.	4. Annual Goals	5. Responsible Person/dept.

V

Form #3

6. Goal Obj. No.	7. Short Term Objective Statement	8. Beg. Date	9. Antic. Finish Date	10. Evaluation Instrument Procedures	11. Evaluation		12. Comments
					Pre	Post	
					date score	date score	

TABLE 1. Instructional Media Stimulus Relationships to Learning Objectives

INSTRUCTIONAL MEDIA TYPE:	LEARNING OBJECTIVES: Learning Factual Information	Learning Visual Identifications	Learning Principles, Concepts and Rules	Learning Procedures	Performing Skilled Perceptual-Motor Acts	Developing Desirable Attitudes, Opinions & Motivations
Still Pictures	Medium	HIGH	Medium	Medium	low	low
Motion Pictures	Medium	HIGH	HIGH	HIGH	Medium	Medium
Television	Medium	Medium	HIGH	Medium	low	Medium
3-D Objects	low	HIGH	low	low	low	low
Audic Recordings	Medium	low	low	Medium	low	Medium
Programed Instruction	Medium	Medium	Medium	HIGH	low	Medium
Demonstration	low	Medium	low	HIGH	Medium	Medium
Printed Textbooks	Medium	low	Medium	Medium	low	Medium
Oral Presentation	Medium	low	Medium	Medium	low	Medium

January 1967 - AUDIOVISUAL INSTRUCTION

CRITERIA FOR THE SELECTION OF TEACHING GAMES

1. Games should be selected which reinforce the concepts and skills currently being developed through courses of study.
2. Some games or activities should provide for the opportunity for manipulation of materials which will enable better understanding of concepts.
3. Games should provide for individual differences in interest and ability.
4. Games should not cause pupils to reach wrong conclusions or develop habits which must later be broken.
5. Games should place a premium on accuracy as well as speed.
6. Materials used should be durable, easily assembled, stored, and replaced if lost.
7. Games should foster good sportsmanship and discourage embarrassment.

STANDARDS FOR THE USE OF TEACHING AIDS AND GAMES

1. Skills should not be introduced for the first time in games.
2. The use of games as busywork should be discouraged.
3. Avoid the use of games that are too complex.
4. Stop playing a game before the children lose interest in it.
5. Be sure that the rules are clearly understood and accepted.
6. See that the children understand the educational purpose of the game.
7. Children should be given frequent opportunities to choose their own games.
8. Play the game with friends, co-workers, or family before introducing to class.
9. After a few children have mastered the game, allow them to teach the others.
10. Check to see if rules are being followed, or where changed, that the new rules do not lessen the value of the game.
11. After the children are accustomed to the routine that is expected of them, have games and aids in sight, easily accessible, and labeled as to number of parts and place of storage.

GAMES AND MOTIVATIONAL IDEAS

Excel by Behrmann & Millman, 1973, Educators Publishing Service, Inc.

Experiences for Children in Learning
Parent-directed Activities to develop: Oral Expression, Visual Discrimination, Auditory Discrimination and Motor Coordination

Excel II Behrmann & Millman, 1976, Educators Publishing Service, Inc.

Parent Directed Activities to develop: Body Image, Spacial Relations Tactile Acuity, Left/right Discrimination, Rhythm

Reading With a Smile - Burre, Heltshe, 1975, Acropolis Books LTD.

90 Reading Games in the areas of Readiness, reading skills, and content oriented. covers phonics, visual learning and structural analysis.

Ideas for Reading Learning Centers,- California Reading Association, 1973.

Games in areas of readiness, vocabulary, phonetic analysis, structural analysis, comprehension, creative writing and study skills.

Discover New Ways - Alternatives for Learning, -Hamilton & Fisher1972 Discovery Learning, Washington.

Ideas for learning centers, tasks and games in the areas of math, phonics, writing and creative arts.

Flying High: Discovery for Intermediate Grades, Hamilton & Fischer, 1974, Discovery Learning, Washington.

Ideas for setting up and orienting a program using Learning Centers in Language Arts, Math and Discovery of New subject areas.

Activities Deskbook for Teaching Reading Skills. Joan Higley, 1977, Parker Publishing Co.

Activities in the areas of oral reading, motor responses, picture clues, context clues, recall, auditory perception, auditory discrimination, visual recognition, visual discrimination, vocabulary, structural analysis, stimulate pupil interest and creativity.

It's Positively Fun - Kaplan, Kohfeldt, Sturla

Techniques for managing learning environments using awards, free time, points, contracts, silent warnings, accomplishment sheets and school-home communicators.

Readiness Joy - Keith, 1975, Naperville, Ill.

Includes a guide to necessary skill areas, informal assessment, games and mobiles, and reference lists in auditory and visual areas.

Word Attack Joy - Keith 1977, Naperville, Ill.

Includes word attack skills list, informal assessment and games. Also reference lists of words.

Comprehension Joy - Keith, 1976, Naperville, Ill.

Includes comprehension skills list, guide to types of comprehension, informal tests of comprehension, games and reference pages.

Reading Comprehension Games - Love, 1977, Fearon Pub. Inc.

For grades 4-6. Covers skill areas of following directions, finding details, main idea, drawing conclusions, locating information and distinguishing fact from opinion.

Classroom Reading Games Activity Kit, Mallett, 1975, Center for Applied Research in Education.

Covers correction techniques in the following areas: sight word knowledge, phonetic analysis skills, structural analysis skills, context clue useage, use of dictionary and glossary, meaning vocabulary knowledge, literal comprehension skills, interpretive comprehension skills, critical reading skills, creative reading skills, study skills, also includes examples of techniques explained.

Tutoring is Caring - Wolf, 1976, Montessori Learning Center.

Information on setting up a tutoring program. Major teaching techniques illustrated by use of phonics. Begins with consonants, then short vowels, word building, reading simple words, new consonant sounds, long vowels, more vowel sounds, more work with consonants. Has section on learning disabilities and dealing with the learning disabled child. Includes game and activities for motivation. Also ideas to develop expression and comprehension and penmanship.

TWELVE

HOW TO APPROACH ARITHMETIC WITH THE LEARNING DISABLED CHILD: ASSESSMENT AND STRATEGIES

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The problem of disabilities in arithmetic has received less attention in the area of remedial and corrective teaching than any of the other basic skill areas. Perhaps it is because so much emphasis has been centered on making children literate. Possibly it is because it was thought the new math would eliminate the dilema. Little research is available to clarify this issue. However, analysis does show that problems faced by children who have failed after exposure to the modern mathematics curriculum seem similar to those faced by children who failed in old math programs. This suggests that regardless of the program, new, old, etc. being used, numbers of children do and will continue to have problems mastering this inherently difficult subject.

The aim of this chapter is to serve as a guide by suggesting how to use assessment tools to effectively design and implement remedial arithmetic instruction programs and to select appropriate materials considering individual strengths and weaknesses. Included are discussions of 1) our philosophy of teaching arithmetic and possible causes for disabilities in this area; 2) the purposes of assessment and a guide for use of selected tools; 3) how to use diagnostic information to implement remedial instruction; and 4) how to select appropriate materials.

A DIAGNOSTIC-PRESCRIPTIVE APPROACH

Mathematics is defined as the abstract science of space and number which deals with space configuration and the interrelations and abstractions of numbers. Arithmetic is a branch of mathematics that deals with real numbers and their computation. There is much confusion today in the area of elementary school arithmetic instruction. Many parents and teachers are disgruntled with the new math. A comparison of new math and old math may help to understand the problem.

New math has a strong cognitive basis. The emphasis is on the study of the mathematical structure of operations and concepts while old math programs relied heavily on rote memory. The methodology of the new programs purports to promote thinking through the use of the problem - solving approach which emphasizes explanation, experimentation, and discovery. Many programs contain little or no reference to the application or uses of operations. The assumption of new math is that practicing computation is not necessary because it will come automatically once the child knows what he is to do - when he understands the concepts. The new math is designed for verbalists. Children taught by the new methods parrot concepts verbally, whereas children taught by the old methods performed written computations.

The goals of new math appear to be desirable ones, however despite the change in curriculum children are still experiencing difficulty learning arithmetic. In general learning problems in arithmetic accompany learning disabilities in other areas of school work. One reason is that these pupils often have difficulty assimilating abstract ideas presented through verbal communication in the classic mode of math presentation. However, sometimes a student who is a good reader will have difficulty only in math while other times a student who is a poor reader will do very well in arithmetic. A comparison of some of the skills involved in the two processes is made below.

1. There are only 10 number symbols compared to 26 letters in the alphabet. It is probably easier to learn 10 than 26 codes.

2. The number codes have uniform perceptual values in position and sequence while letter sounds change from one word to another.

   a in at. a in car.

3. In addition, subtraction and multiplication it is necessary to begin computation on the right and move toward the left, while in reading we teach the child to look at the word from left to right.

4. The teaching of number codes is gradual, systematic, and progressive. The teaching of lexigraphic codes is very unsystematic by comparison. After some initial attempts at code teaching in reading, children are encouraged to look and guess.

The sequential progressive nature of arithmetic makes it easier than reading for some children. However, due to its sequential progressive nature it is generally necessary to actually teach the skills for learning to occur, while reading sometimes is learned incidentally.

Many teachers are not aware of the importance of sequential skills presentation, particularly with the child who is experiencing difficulty. To demonstrate this concept a sample progression of skills in the four basic computations has been included below. The sequential arrangement of the skills suggests that mastery of one skill is essential before effective learning of a later skill will occur.

ADDITION

Sum of two one-digit whole numbers one of which is one	1 +3
Sum of two simple one place whole numbers	5 +4
Sum of a simple one digit whole number and 0	6 +0
Sum of a one-digit and a two-digit number without (regrouping)	47 + 2
Sum of a one-digit and a two-digit number requiring re-grouping (carrying)	66 + 5
Sum of two-digit numbers requiring re-grouping (carrying)	86 +29
Sum of three numbers with up to four digits	2,392 547 +1,216

SUBTRACTION

Subtracts two simple one place numbers, one of which is one	5 -1
Subtracts two simple one place numbers	5 -3
Subtracts two simple one place numbers one of which is 0	5 -0
Subtracts two two-digit numbers (without re-grouping)	77 -12
Subtracts a one-digit number from a two-digit number requiring re-grouping (borrowing)	14 -8
Subtracts two-digit numbers requiring re-grouping (borrowing)	25 -16
Subtracts two-digit numbers when a zero is in the subtrahend (top number)	70 -36
Subtracts a two-digit number from a three-digit number requiring re-grouping (borrowing)	372 -18
Subtracts a two-digit number from a three-digit number possessing two zeros	500 -94

MULTIPLICATION

Multiplies a simple whole number by two	4 x2
Multiplies a whole number by itself	3 x3
Multiplies two simple whole numbers	6 x3
Multiplies a whole number by 0	2 x0
Multiplies a two-digit number by a one-digit number requiring no re-grouping	12 x3
Multiplies a two-digit number by a one-digit number requiring carrying to the 10's place	15 x7
Multiplies a two-digit number by a one-digit number resulting in a 3 digit product	75 x8

Multiplies a three-digit number by a one-digit number requiring carrying to the 100's place	$\begin{array}{r}172\\ \underline{x3}\end{array}$
Multiplies a three-digit number by a one-digit number requiring carrying to both the 10's and 100's place	$\begin{array}{r}187\\ \underline{x4}\end{array}$
Multiplies a two-digit number possessing a zero in the 1's place by a one-digit number	$\begin{array}{r}80\\ \underline{x4}\end{array}$
Multiplies a multiple digit number possessing a zero in the 10's place by a one-digit number requiring carrying to the 10's place	$\begin{array}{r}106\\ \underline{x4}\end{array}$
Multiplies two two-digit numbers	$\begin{array}{r}57\\ \underline{x24}\end{array}$

DIVISION

Divide a one-digit number by a one-digit number	$2\overline{)6}$
Divides a two-digit number by a one-digit number with no remainder	$3\overline{)15}$
Divides a two-digit number by a one-digit number with a remainder	$6\overline{)20}$
Divides a two-digit number by a one-digit number with no remainder (no re-grouping)	$3\overline{)69}$
Divides a two-digit number by a one-digit number re-grouping required	$3\overline{)78}$
Divides a three-digit number by a one-digit number with re-grouping required	$4\overline{)132}$
Divides a three-digit number by a two-digit number obtaining a one-digit quotient (answer)	$15\overline{)105}$
Divides a three-digit number by a two-digit number with re-grouping required	$12\overline{)132}$
Divides a multiple digit number by a multiple-digit number with a remainder	$16\overline{)1308}$

As it has been seen that many children's difficulties stem mainly from specific deficits within the skill progressions of the four basic operations, these have been presented as examples. However, similar progressions can be constructed for working with fractions, decimals, per cent, interest, etc., as well as concept areas such as place value, time, money, measurement, etc. This is accomplished by analyzing the proposed curriculum and breaking each skill area into small sequential steps.

ASSESSMENT

In reading, the purpose of assessment is generally to try to discover how the child learns best and to match his/her skills with the preferred learning method. This is also true in arithmetic, but more importantly, as math is sequential, the ultimate goal of assessment is to discover where the child is in the progression of skills. In other words it is necessary to look for the specific skills the child does or does not have. If effective, assessment, should suggest appropriate materials and strategies for remediation.

WRAT

As was discussed in Chapter 4, the Arithmetic Level I section of the WRAT is a commonly used tool to determine a student's achievement level. In examining the particular test items on the test blank, it becomes obvious that a limited amount of information is obtained from this test. It gives no information about how well the child understands arithmetic concepts. Also, there are few examples of each operation, i.e. there are only three multiplication problems - a fourth one involves multiplying with decimals. Additional information about the breakdown of skills within each operation is necessary to obtain specific ideas for remedial programming.

KEYMATH

The KeyMath Diagnostic Arithmetic Test is frequently used when a more in-depth diagnosis is desired. It is published by AGS, American Guidance Service, Publisher's Building, Circle Pines, Minnesota 55014.

The test is organized in three major areas; Content, Operation, and Applications, and consists of fourteen subtests. Although KeyMath is designed to be used primarily for Children in grades K-6, there is no upper limit for individual clinic and remedial use.

All materials are conveniently incorporated in an easel kit. The test items make up the loose leaf notebook interior in which the subtests and their respective items are organized sequentially. Each subtest is labeled with tabs and each item within the subtest is numbered to provide efficiency in administration.

A diagnostic record is used to record the test data and responses, examiner's comments and instructional recommendations as well as space for printed computations. The unique feature of the diagnostic record is the comprehensive diagnostic profile which is found when the record is fully unfolded.

The test is designed to provide four levels of diagnostic performance:

a) a total test score which can be translated into grade equivalents.

b) a general pattern of performance is identified according to the student's performance in the three areas - content, operations and applications.

c) the profile depicts the student's relative performance in the fourteen subtests - this allows one to see the student's strengths and weaknesses across the subtests.

d) and finally, attention is focused on the student's performance on each item - a description of the skill sampled by each item is included in appendix A in the manual.

In many cases the KeyMath reveals much more detailed information than the WRAT. It is frequently noted that the child does know the arithmetic concepts by his performance on the KeyMath but has failed to relate them to everyday life. Often it appears that children have learned the concepts as isolated facts. This is one of the common criticisms of new math. The KeyMath also provides a broader selection of problems in the four basic computations. This enables one to gain more specific information about the breakdown of skills within each operation.

INFORMAL DIAGNOSIS

Additional information and often the most helpful in suggesting appropriate remedial materials and strategies can be obtained through informal diagnosis. This is done by examining the errors a student makes in computation. Often it is helpful to observe the student as he is actually working the problems. It is frequently possible to see what method he is using and exactly where he is breaking down; he doesn't know his time, doesn't know how to line up the numbers, etc. It is possible to discover a pattern of errors or that many of a particular student's errors are due to carelessness due to haste or inattention.

Asking the child to describe aloud the procedures involved in solving a particular arithmetic operation may be helpful. Interviews with children often reveal misunderstandings of basic arithmetic concepts or procedures. Examining the processes utilized by the child at this stage one can often isolate many specific arithmetic deficits.

KeyMath and the arithmetic section of the WRAT lend themselves well to this type of diagnosis. When using a test of this kind, it is necessary to be aware of the specific skill each item is testing. The sample progressions provided earlier can be helpful in this process. Generally because of the time consuming nature of written computation, these items are screened carefully to represent substantive progressions in the computational process. When a child fails an item in a skill area it is sometimes necessary to determine if it is a careless mistake or actually a deficiency in arithmetic skills. It is then helpful to verify the error pattern with two or three examples of the same skill or other skills within the larger steps in the progression. Using the sample progressions it is quite easy to construct examples which test the desired skills.

Another method of informal diagnosis which can provide useful information is to examine one or more pages of a child's arithmetic work in a problem area. When one is aware of the progression of skills involved in each basic operation, it is often quite easy to spot the child's weak skills by analyzing the mistakes he makes in his everyday work.

Let's look together at some errors frequently seen in everyday work and/or in the testing situation:

1. $\begin{array}{r} 4 \\ 8 \\ 2 \\ 3 \\ \hline 15 \end{array}$

The child adds 4 + 8 + 3 = 15. He skips or leaves out the two. I might ask myself is this a careless mistake, or could it be a perception problem.

2. $\begin{array}{r} 582 \\ 35 \\ \hline 47 \end{array}$

In this problem the student subtracts 5 from 12 and gets 7; 3 from 7 and gets 4; but doesn't complete the problem. This again could be carelessness, a perception problem, or maybe the child doesn't understand place value.

3. $\begin{array}{r} 35 \\ 20 \\ \hline 50 \end{array}$

The child adds 0 to 5 and gets 0 then adds 3 + 2 = 5. Here he has made an error with the zero identity in addition.

When a child makes an error involving zero I always question the student.

Often you'll find he isn't consistent. One time he'll say 5 + 0 = 5 and another time 0. There could be several reasons: maybe he hasn't had enough practice with zero's; maybe he doesn't understand place value; maybe he has memorized the rule but mixes up the rule for addition and multiplication -

$$n + 0 = n \quad \text{while} \quad n \times 0 = 0.$$

It may be necessary to go back to the concrete level to demonstrate the concept. It is frequently helpful to urge the student to use common sense - i.e. if you have 5¢ and you don't get anymore how much do you have altogether.

4. $\begin{array}{r} 783 \\ -2 \\ \hline 561 \end{array}$

In this problem he/she subtracts 2 from 3 = 1; 2 from 8 = 6; and 2 from 7 = 5.

We need to know if he is just not reading the whole problem, or if maybe he has memorized the rule but doesn't really understand the process involved in the operation.

5. $\begin{array}{r} 371 \\ -134 \\ \hline 137 \end{array}$

This is a frequent mistake. The child borrows unnecessarily - takes 4 from 11 = 7 - makes it 3 from 6 but automatically says 1 from 2 = 1.

You may think - well if he crossed the numbers out and renamed them he wouldn't make this mistake. Often kids borrow by the rule and cross out and rename mechanically and don't really look at what they are doing - otherwise they would know you don't take 3 from 16

Basically what we are doing is looking to see how the child gets the answer he does.

6. $\begin{array}{r}23\\ 8\\ \hline 211\end{array}$

Here is another common error. The child adds 3 + 8 and gets 11. He doesn't carry or rename. Then he brings down the 2, often completely unaware that the answer isn't realistic; i.e., that 23 and 8 couldn't be 211. We might assume, the child doesn't know the concept, however, frequently he can parrot it to you but doesn't relate it to the actual computation.

7. $\begin{array}{r}723\\ 639\\ \hline 116\end{array}$

This may be the most common subtraction error. The student subtracts the smaller digit from the larger digit rather than renaming or borrowing - in other words 3 from 9 is 6; 2 from 3 is 1; and 6 from 7 is 1. Again in most cases the child probably knows the concept. Generally the reason for this kind of error is just not enough practice with the operation. Or possibly, he knows the rule but doesn't relate it to when you need to do that.

8. $\begin{array}{r}457\\ 12\\ \hline 914\end{array}$

Here the student multiplies by only 1 number, not completing the problem. He says 2 x 7 = 14; 2 x 5 + 1 = 11; and 2 x 4 + 1 = 9. This could be a careless mistake, a visual perception problem, not enough room provided to work the problem correctly with ease, or that he really doesn't understand the operation or concept of place value.

9. $\begin{array}{r}67\\ 40\\ \hline 3220\end{array}$

Another frequent mistake in multiplication is carrying the wrong number. For example: 0 x 7 is 0; 4 x 7 = 28; and he carries the 8. Then 4 x 6 = 24 + 8 = 32. This could be a careless error but more likely is not a very thorough understanding of place value or other concepts involved in renaming in multiplication.

10. $\begin{array}{r}32\\ 24\\ \hline 648\end{array}$

This error seems to be quite common. Here the student multiplied 4 x 2 = 8; 2 x 2 = 4; and 2 x 3 = 6; and his answer is 648. It may very likely be carelessness but again it is more probable the student really doesn't understand the steps involved in a complex multiplication problem.

11. $\begin{array}{r}37\\ 7\\ \hline 219\end{array}$

This has to be the most common error in multiplication - forgetting to add in the number carried. Here 7 x 7 = 49 and 7 x 3 = 21. But what about the 4 carried from 49? It is forgotten. Again we might say if he had written it down he wouldn't have forgotten it. However, even when the carried number is written down it is frequently forgotten. Generally this is carelessness but not always.

12. $\begin{array}{r}37\\ 2\\ \hline 59\end{array}$

This error is similar to the subtraction error shown above. The student adds the ones to ones and tens. He says 2 + 7 = 9 and 2 + 3 = 5. Probably the student doesn't understand the basic operation but it could be a visual perception problem or maybe confusion with place value.

13. $$\begin{array}{r} 37 \\ \underline{25} \\ 52 \end{array}$$

Here is an error we all see frequently - both in multiplication and addition. The student does not add in his number renamed from ones to tens. He says 7 + 5 = 12 and 3 + 2 = 5. It should be 1 + 3 = 4 + 2 = 6. However in some cases not knowing what to do with the renamed number the student might have done something as different as 5 from 7 = 2 and 3 + 2 = 5!

14. $$\begin{array}{r} 54 \\ \underline{-9} \\ 55 \end{array}$$

Here the student has forgotten to rename the 5 in the tens column after borrowing. Taking 9 from 14 he gets 5 and then nothing from 5 = 5. This is another very common error and is probably due to carelessness.

15. $$\begin{array}{r} 803 \\ \underline{478} \\ 335 \end{array}$$

This might be the most common error in subtraction - difficulty borrowing when zero's are involved. This is a clue that although the student may be able to parrot the rule he really doesn't understand the process at all. Here the child took 8 from 13 and got 5 (borrowed 1 from the 8); 7 from 10 = 3 (again must have borrowed from the 8); and 4 from 7 = 3. Another possibility is that he said 3 from 8; 7 from 10; and 4 from 7. This is a case when it might be really informative to ask the child just how he got his answer - you might be surprised!

16. $$\begin{array}{r} 7 \\ 3\overline{)230} \\ \underline{21} \\ 10 \swarrow \\ \underline{9} \\ 1 \end{array}$$

Some very frequent problems in division involve subtracting incorrectly within the problem which often results in an answer very different from the correct answer. In this problem the student was doing fine until he subtracted 1 from 3 and got 1. It is likely that this kind of error is due to carelessness.

17. $$\begin{array}{r} 432 \\ \underline{57} \\ 3\boxed{0}24 \\ \underline{21\boxed{6}0} \\ 24\boxed{0}24 \end{array}$$

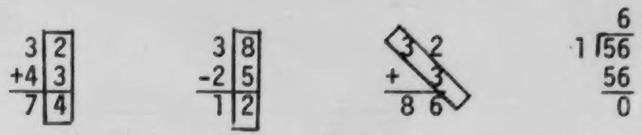
Also in multiplication errors in adding frequently account for incorrect answers. In this example the student has done a great job multiplying but when it came to addition he said 0 + 6 = 0. He could easily be confusing the zero in addition with its role in multiplication.

18. $$\begin{array}{r} 30\ \text{R}3 \\ 4\overline{)1203} \\ \underline{1200} \\ 3 \end{array}$$

Here is a very common error in long division - omitting a zero in the quotient. I try to avoid this error by emphasizing that you need to keep the numbers in the quotient directly above the last number into which you are dividing. For example, had the student said 4 into 12 = 3 then placed the 3 above the 2 he might not have made that error. Also, emphasizing that each number after the 2 in the divident must have a number above it in the quotient, helps to avoid leaving the problem incomplete.

Note: These last examples format changes a little.

Some of the most frequent errors involve not knowing the basic number facts:



It is felt that when a child doesn't know the basic facts he/she should be provided with an aid such as a number line or times table to aid in computation. If we are trying to teach the child skill in a basic operation and he doesn't know the required facts, he will be working at a frustration level, and is unlikely to learn the skill being taught. If the facts must be learned then we should teach them as a separate skill in a way that is effective for the individual involved.

Analysis of errors can help to identify specific skill weaknesses and strengths, providing information which will be far more useful in planning an appropriate remedial program than merely saying the child has trouble with multiplication. In fact, as was shown, frequently it is discovered the child only has trouble when zero's are involved. Or maybe it is determined that he knows the operations but doesn't know all the number facts involved.

In arithmetic instruction it is important to remember that just marking answers wrong might not be helpful to a child. Often, in fact, it might be wise to consider an error to be a signal that further instruction may be needed. It is felt that remedial instruction is most effective when the child sees the need for learning the skill. Errors demonstrate that need. Also, due to the sequential skill progression in arithmetic, lack of specific basic skills interfere with the acquisition of later skills in the progression. Therefore learning to effectively diagnose arithmetic errors informally is useful and essential for planning appropriate remedial instruction.

PROGRAMING

Remedial education is rarely successful unless a great deal of attention is given to diagnosis of specific factors causing the learning problem and then to individualizing the program to meet those specific needs. Too often, even in remediation, the learner is adapted to the program when in fact our goal is to adapt the program to the learner.

Remedial planning for a disability in arithmetic must include reference not only to basic computation skills, but also to the level of concept development and underlying deficits in the learning processes. As was mentioned earlier learning problems in arithmetic generally accompany learning disabilities in other areas of school work.

The assessment process previously described should enable one to pin point the specific computation skills which the child does or does not have. It follows that an appropriate remedial program would begin at a skill level where the child is presently functioning successfully and provide instruction and practice on each respective skill in the progression until the deficit skills have been mastered.

Sometimes specific skill deficits are due to inadequate concept development. As was stated earlier, the goals of new math appear to be desirable ones for the learning disabled. Many of the old math programs were characterized by rote memorization. It has been shown by research that rote memorization leads to almost no recall. The emphasis of new math programs is based on the belief that helping the child develop an understanding of the basic structure of our number system will be more beneficial than rote performance and rote learning of isolated skills and facts. It is probable that into the structure and application of our number system will continue to be prime objectives of elementary school programs. Therefore, to teach the child to function effectively within the school program, remedial planning must include emphasis on concept development.

Some concept areas of arithmetic which frequently cause problems for the learning disabled include place value, flexibility and reversibility of thought, concept of conservation, telling time, monetary values and measurement.

PLACE VALUE

One of the major principles in our numeration system is positional patterns or place value. Many children have trouble in attempting to understand that a value based upon powers of ten, is assigned to each position in a numeral (e.g. 395). Successive progression in both addition and subtraction will depend upon an understanding of place value. Some children are unable to complete arithmetic examples which require carrying or borrowing. The child who adds 63 and 18, for example, and writes the answer "711" is obviously not comprehending the concept of place value. Consequently a thorough understanding of place value is necessary for most children to successfully complete these operations and other higher mathematical processes.

FLEXIBILITY

Before meaningful formal instruction in arithmetic can occur, the child must have achieved flexibility and reversibility of thought as well as the concept of conservation. Flexibility is necessary for the child to recognize that "10" equals 5 + 5, but it also equals 4 + 6 or 9 + 1. Reversibility is essential for the child to grasp the relationship between addition and subtraction; for example, 5 + 4 = 9 and 9 - 4 = 5. The concept of conservation, closely related to that of reversibility refers to the fact that the number of units within an object or set remains the same regardless of changes made in the arrangement of the set. The familiar Piagetian experiment of water poured into a tall, thin glass versus a low, wide glass are examples of conservation.

TELLING TIME

Learning to tell time is one of the most difficult quantitative skills for some children. It is not unusual to see many adolescent learning disabled children still struggling with this skill. Poor sequence of time coupled with the complexity of the clock's number system are possible contributing factors to poor time telling skills. It is not easy for some children to understand that the twenty-four hours in a day are indicated on the clock as two sets of twelve. The fact that there are two six o'clocks each day might consequently be very puzzling to some children. Additional confusion in learning to tell time will arise once some children are presented with half-hours, quarter-hours, and before and after the hour. The various terminology for expressing 7:15 ... "fifteen after seven;" "quarter after seven," etc. -- for example, can be very confusing.

MONEY

It is extremely difficult for some children to learn various coin and currency denominations. The actual names of the coins are often very confusing. Sometimes children find it difficult to learn the different combinations for coins. Five pennies might sometimes equal a dime, for example, or two nickels might equal a quarter. Making change is very difficult for the child with this specific disability.

MEASUREMENT

Measurement is an important area of mathematics in the elementary school curriculum. The understanding of measurement certainly affects achievement in a wide variety of quantitative skills. As children progress in mathematical programs they are introduced to different types of measurement including liquid (teaspoon, cup, pint, etc.), weight (ounce, pound, ton, etc.), time (day, month, year, etc.), and length (inch, foot, yard, etc.). There seem to be problems peculiar to the specific type of measurement for many children. In addition, the complication of learning the metric system, is very confusing for some children. Some have difficulty in the actual measuring process (e.g., figuring the three-inch mark on the ruler or measuring out a cup of milk), while others encounter differentiating a month for a year, decade, or century.

An appropriate remedial program must include instruction in these important concept areas if deficits are discovered through results from tests such as the KeyMath or through informal diagnosis in the classroom. The same strategies used in working with computational skill deficits are suggested for pinpointing and remediating the deficits encountered in the development of concepts. Construct a sequential progression of the skills involved in learning each concept area beginning with the most concrete and moving toward the abstract. Once the skills are arranged in small sequential steps and the child's strengths and weaknesses have been determined remedial planning should be evident. Again it is important to begin instruction at a point in the progression where the child is presently functioning effectively and then proceed one step at a time to fill in the deficit skills.

Remedial planning for a child with a learning disability in arithmetic must also make reference to underlying deficits in the learning process. A number of writers have noted that many specific arithmetic deficits are related to other learning disabilities including various problems in memory, written language, receptive language, left-right orientation, and reading. It is important to evaluate these problems in terms of implications for arithmetic achievement and orientation.

MEMORY

Many important arithmetic skills are influenced by various memory disorders. This might be difficulty associating the written numeral with its name. In some instances, the child may understand the concept of "4" but may not remember how to write it. Likewise, the child who cannot remember the shape of a "3" or a "7" will encounter difficulties in recognizing these numerals. The child who is unable to remember computation facts for addition, subtraction, multiplication or the sequence of steps for division is certainly hindered in many arithmetic operations. Rapid oral drills will be very frustrating for the child with auditory memory problems.

WRITTEN LANGUAGE

Those children who have difficulties in learning to write letters and words will probably have some difficulty in writing various numbers. In addition, children with written language deficits will likely experience problems in aligning arithmetic examples correctly. Seatwork activities which require the child to copy examples from a book or the chalkboard are devastating experiences for some children.

SPOKEN LANGUAGE

Although it has been suggested that many children with arithmetic disabilities have good spoken language ability, many LD children do have problems in understanding quantitative terms. The language of arithmetic often requires the child to attach additional meanings to words or terms that are already known. The terms carry, empty, set, and times all convey quantitative meanings possibly different from the meanings for the words that were originally learned.

QUALITATIVE LANGUAGE

Terminology difficulties and problems in understanding operational signs are two of the quantitative language disabilities encountered by LD children. These specific difficulties also contribute to many of the other difficulties such as problem-solving skills, measurements. Quantitative language disabilities seem to affect mathematical achievement in all levels from preschool through secondary levels, more than most other specific disabilities.

LEFT-RIGHT ORIENTATION

Difficulty in left-right discrimination has been frequently mentioned as a detriment to arithmetic achievement. While a left-right orientation is necessary for writing the numbers and reading, a right-left orientation is required in solving columns of addition, subtraction, and multiplication. The fact that division is done from left to right only adds to the confusion. Reversals and rotation of numbers may result from problems in this area (i.e. 32 for 23 or 6 for 9).

READING

Reading problems frequently characterize those children who perform well on tests of computation or on oral story problems, but who do poorly in typical workbook or standardized test situations in which they must be able to read the problem to understand which mathematical process to perform.

Difficulties in the area of reading do not necessarily impede a child's progress in arithmetic. However, many specific reading skills are certainly related to quantitative processes. The various perceptual deficits which cause a child to reverse, rotate, or invert letters will probably also affect numbers. Likewise, the visual discrimination problems which contribute to a child's inability to distinguish certain letters will certainly affect the recognition of some numbers. Most importantly, the ability to read and analyze arithmetic story problems will be affected by various reading disorders. The reading disabled child will often be unable to solve arithmetic word problems because of word recognition difficulties. Reading comprehension problems can also contribute to the lack of reasoning ability of some children with arithmetic disturbances.

Specific teaching suggestions which might be helpful in planning an appropriate remedial program for children with problems in some of these areas are provided below.

VISUAL PERCEPTION

Quadrille paper is recommended for arithmetic work in the classroom. Written assignments should be short, highly structured and limited to one type of problem at a time. Let the child dictate problems to be written by someone else. If the child is more talented orally than visually, give oral directions.

AUDITORY PERCEPTION

Give individual help where there are few distracting noises. Use a record player, tape recorder, etc. with earphones for presenting lessons. When giving directions get the child's attention by touching his arm. Have him look at the speaker.

AUDITORY MEMORY

Give simple directions the child can remember. When possible have written directions for the child with problems in this area.

DISORGANIZED

Use highly structured routines and materials. Give clear explicit directions. Provide a calm atmosphere. Try programmed math materials; break tasks into small component parts. Teach the importance of lining columns of figures carefully. Plan a daily routine that is adhered to rather specifically.

DISTRACTIBLE

Isolate the child to complete a specific single task of short duration, then put materials away immediately after use. Use a study carrel to protect students from distracting sights and sounds. Sit the distractible child directly in front of the teacher. When applicable use ear plugs to reduce auditory stimulation. Have such a child complete one task, but put all materials away before starting the next task. Permit him to use a card or frame to focus attention on a single problem.

PERSEVERATION

Give a five, three, and one minute warning before a change of activity. Have the child move physically to a new task. Set limits before starting a task. Always interrupt the perseverating child.

IMPULSIVITY

Set limits to behavior for self-control. Help student plan specific steps in order, visual cues such as arrows or dots to specify starting point might be helpful. Discourage wild guesses.

HYPERACTIVITY

Try to channel activity constructively by frequent opportunities to exercise. The hyperactive child can sometimes function more effectively for a short period of time so keeping assignments short might be helpful. Providing a diversion from productive activity between assignments might also be effective.

DIFFICULTY WITH ABSTRACTIONS

It is helpful to stress similarities and differences. Point similarities and teach him to group things in different ways. When possible use concrete materials.

SPATIAL RELATIONSHIPS

The teacher can place a red arrow made out of tape on the learner's desk to remind him of the direction in which he is to proceed. He can give the student clues by using color (magic markers) so that he will maintain proper placement of columns. For example:

$$\begin{array}{ccc|c|} & 3 & 2 & 8 \\ + & & 4 & 6 \\ \hline & 3 & 7 & 4 \end{array}$$

(line drawn with red magic marker)

SELECTING APPROPRIATE MATERIALS

After determining the specific skill deficits and or accompanying learning disabilities which are interfering with a child's progress in arithmetic, and programming for these specific needs, one is ready to select the materials which will best facilitate learning. Too often, even at this point, we fail to adapt the program to the learner, rather we attempt to adapt the learner to the program. It must be remembered that a textbook should not determine what is to be taught. It is only a guide and an aid in presenting predetermined concepts and materials learners should be able to cope with at the instructional level. The diagnostic strategy enables one to create new teaching sequences which are more effective with some children. This includes escaping from the bonds of traditional or prescribed curriculum methodologies and adjusting the mode, rate, amount, and sequence of input according to the needs of each student.

It is not expected that the teacher or clinician will find ready-made programs for all the disabilities and skill deficits encountered. It is necessary to adapt, modify, and improvise. In many cases the child's characteristics and the program characteristics will not fit. There seems to be no one program for any one type of learning style - visual, auditory, or multisensory. Many approaches do emphasize different modalities for some aspects of the subject. It is necessary then, once an appropriate teaching sequence has been selected based upon the child's deficits and learning style, to select materials which best facilitate learning.

To some extent selection of instructional materials reflects an individual's subjective preference in style, format, and response made. However, certain guidelines and considerations, other than skill content, are helpful in determining appropriate types of materials for each child. Some of these are discussed below:

RATE OF INPUT

It is essential that the teacher consider the rate of input that is appropriate for each learner. Some children are "slower learners". They need more time to acquire each skill. Some children need much repetition before a task is learned. By trying to push the child too fast, the teacher may produce anxiety and frustration in the child. Many children are jammed with too much input given at one time. Sometimes that extra example may cause the child to forget much of what has already been taught. The amount of input must be controlled to leave the child with a successful experience.

In selecting materials one should consider the amount of drill provided. Some children are first rated when a whole page is filled with drill problems. Consistency of the page format and problem format are important. The clarity of examples and the clarity of illustrations should also be considered.

ORDER OF PRESENTATIONS

One of the critical variables in terms of input is the order of presentation and the level of abstraction of the instructional materials. The material should be ordered in hierarchical, sequential steps, and the sequences logically related. Learning is more efficient when new material is tied associatively to that which has already been learned. Again the amount of drill provided is important. There should be enough drill to ensure mastery of each task before proceeding to a subsequent task.

Materials should reflect the level of abstraction appropriate for each individual. In arithmetic the level of presentation that appears to be most successful is the concrete one. Manipulative activities with concrete materials allow the child to discover a number fact for himself. The child should be guided step by step from simple number concepts to the mastery of arithmetical computation and problem solving.

INTEREST AND MOTIVATION

In selecting materials it is necessary to select subject matter that has interest and motivation for a student who has problems in math. Because of their past continued failure in the study of arithmetic they are, in the majority of cases, frightened and inhibited by the ordinary presentation of mathematics. This attitude can be changed by building self-respect through ensuring initial success with simple material, by giving everyday practical applications, and by showing sympathetic understanding of their difficulties. Research shows that a meaningful approach to learning is superior to approaches that either ignore meaning completely or at least do not emphasize the meaningful aspects. Good materials for remediation might use practical problems to demonstrate the usefulness of a particular math concept when introducing it for study.

STUDENT COOPERATION

It is helpful when implementing a remedial program to enlist the cooperation of the student. It is often easier for the child to see the need for learning arithmetic than to see the need for learning some of the other basic skills. It is sometimes a good idea to explain to the student the nature of his difficulty, briefly review the steps needed to correct it, and show how the selected materials will aid that process. The student is generally willing to participate in a program he helped to select. Providing success experiences early, will allow the student to actually see his progress toward correcting his deficient skills.

Other guidelines to be considered when selecting materials include:

- the amount of reading required and the difficulty of the language.
- the flexibility of the material for use with children with perceptual difficulties.
- provisions for individualizing instruction both in terms of rate of presentation and in terms of intensity.
- allowances for readily breaking the material into smaller steps or supplementing with other materials for those children who fail to learn.

Some students are failing to learn because they need many varied experiences with manipulative materials while others need more actual paper and pencil drill for each small step in the sequence of skills. Still others are more motivated by story problems, or problems that deal with every-day life situations. It becomes apparent that for effective remedial instructions the educator needs to be aware of, and have access to, a variety of materials involving varied formats, strategies, and modalities. Many of the materials for teaching arithmetic concepts and skills may need to be teacher-made. However, some commercial materials are useful. Often it is necessary to compile material from several different programs to obtain a remedial program that is appropriate for a particular child.

Often considerable ingenuity and resourcefulness on the part of the teacher are essential in implementing a remedial program and selecting appropriate materials for the instricting children with arithmetic disabilities. Learning to evaluate materials in terms of the factions, affecting learning processes as well as the skills presented in arithmetic materials will greatly enhance this process. The following discussion presents a critical look at three types of supplemental arithmetic activities. Similar evaluations should be considered for all materials intended for use with the learning disabled child.

MANIPULATIVE MATERIALS

To facilitate pupil understanding of arithmetical concepts and procedures, there has in recent years been an increase in the use of special devices, such as sets of blocks or rods with proportions corresponding to the relations that exist among the first 10 counting numbers. One set of such blocks, the Cuisenaire Rods combines color with proportions.

Research on the Cuisenaire rods has not been conclusive, but it has indicated that they are at least as effective as more traditional mathematics approaches. In addition these materials minimize drill and rote learning and promote discovery and understanding by the individual child at his own developmental level. The concreteness of the materials and the opportunity for manipulation make them particularly useful for children with whom the regular mathematics program has been unsuccessful.

Instructional programs that emphasize the use of colored rods and other concrete representations of number have been criticized on the grounds that children become too dependent on the rods and are unable to function on a symbolic or abstract level without them. Research suggests that these programs have some value in helping pupils to develop cardinal ideas of number and number relationships. However, a time quickly comes in pupil learning when these concrete number representations become handicaps to efficient use of numbers. They are then, at best, only one of many instructional aids to be used as supplemental materials in a modern mathematics curriculum for children with learning problems, but should not be the exclusive instructional device.

PROGRAMMED LEARNING

Programmed learning has used the subject matter of arithmetic extensively in both basic research in the field and research designed specifically to teach certain arithmetic skills. Programmed materials such as that offered by Sullivan provide a sequential series of texts intended for use with children with arithmetic disturbances. Included are placement and continual progress tests which make the program easy to administer. The programmed texts require no reading ability whatsoever; instead of utilizing written instructions a pictured example is furnished. There is a problem book also which contains word problems related to everyday situations. The provisions of self-correcting and immediate feedback for the student also enhance the program. The stress in this program is on computational skills. There seems to be much more emphasis on acquisition of facts than on understanding of content. Little attention is paid to the building of background concepts and basic understanding. This approach would not be appropriate for any child who does not already have a conceptual foundation in mathematics. The format of the book requires the child to use only the right-hand page. Upon completion of all those pages, the pupil turns the book upside down and works through in the other direction; this could be very unsettling and distracting for many disabled students. The print and answer spaces are small which might also cause difficulty for some. In spite of such limitations programmed instruction seems to offer good possibilities for improving the learning and teaching of some phases of arithmetic.

MENTAL ARITHMETIC OR PROBLEM SOLVING

The ultimate goal of teaching is that students acquire a set of meaningful concepts that they can use effectively to solve problems. There is sufficient evidence that in the past children have not done too well in acquiring these concepts even though they do acquire temporary skills and pass examinations in computational mathematics. Students can "do" their mathematics, but they do not know what it is they are doing. Research findings indicate that many students maintain naive and primitive understandings which interfere with the abstract learning. They often attach a unique meaning in a unique situation and fail to extend the meaning by abstracting and generalizing.

Experience with problem-solving or "mental-arithmetic" can be helpful in improving quantitative-functional thinking. It puts a premium on the type of thinking that life often requires. Analysis of textbooks has shown that their materials are insufficient for an adequate program of instruction for mental arithmetic. Often word problems are set apart from practical and realistic applications causing many children to be unnecessarily confused. To help students solve problems, most textbooks still resort to a standard procedure. One type problem is given, explained by an example, and followed by 10 to 20 problems involving the same techniques for solution. Thus, the student memorizes a procedure and develops a skill, but beyond recognition of a type of problem, does no real thinking.

Evidence shows that a wide experience with problem solving will improve the student's ability in this area. It is also helpful to encourage students to abandon unsuccessful attacks and try other approaches. Ask students to recall similar situations to gain hints toward a procedure that can be helpful in a given problem. Aid students to generalize the solution to every problem, so that it may have the widest application in solving new problems. It is generalization that permits transfer of learning to a new situation. The more students generalize their solutions and the more they verbalize their procedures, the better problem-solvers they will become. Authorities who recommend more emphasis on mental arithmetic do not suggest it as a replacement for the regular program but rather, as a complement to or as an integral part of that program.

Emphasizing the problem solving aspects of arithmetic might be an appropriate approach for students who do well in the other areas of basic skills but who do poorly in math--for example the sixth grader who reads at ninth grade level but functions at fourth or fifth grade level in math. This approach might provide the necessary motivation to learn the computational skills necessary to solve this type of problem.

In conclusion, it is important to remember that planning and implementing a program for the child with a learning disability in arithmetic is a three step process involving 1) assessment that determines specific skills the child does or does not have; 2) planning a program which considers the child's skill deficits, and/or specific deficits in the learning processes; and 3) selecting materials which match the child's learning characteristics. This diagnostic prescriptive approach to arithmetic instruction minimizes the possibility of materials directing the teaching program and enhances the consideration of materials as tools which are useful when appropriate to the child, his disability, the diagnosis, and the teaching plan.

THIRTEEN

HINTS ON SPELLING

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SPELLING

In every school there are children who do not learn to spell satisfactorily. Because surveys and statistics have shown that many children of lower mental ability are poor spellers, it is too often incorrectly assumed that poor spellers have a relatively low mentality. When it is discovered that a child of average or high intelligence is not able to spell, the first reaction is generally one of reproach - reproach of the child for lack of effort and reproach of the preceding teachers for inefficiency.

Spelling, a highly complex encoding task is thought by many to be a more difficult task than reading. In spelling, the individual is not aided by peripheral clues, such as context structure and configuration of the word. Spelling is basically a memory process, involving one or more of the sensory channels. The primary channel involved in the memory process may vary from one individual to the next.

Studies of the relationship between spelling and reading and the history of their instruction consistently show that the two are significantly, but not totally, related. Poor readers are also poor spellers, the experts say. However the reverse is most often not the case. Good readers tend to be good spellers, but frequently superior readers may be mediocre or even poor spellers.

There are many obvious reasons for a person to acquire proficiency in spelling. Good spelling skills enable the writer to concentrate on the ideas he/she wishes to convey rather than the mechanics of writing. Good spelling also facilitates easy reading for the reader, making it easy to concentrate on content. Poor spelling creates a poor impression even though we know it is not reflective of intelligence.

ENGLISH SPELLING: A HANDICAP IN ITSELF

The inconsistent nature of the English spelling system alone is enough to create spelling difficulties for many of us. The value of our alphabetic writing system is often lost because of the erratic pronunciations. Early in a child's life he/she encounters to-go; come-sum; goes-does and other sets of words which do not follow the "rules". The child learns that some words must merely be memorized, e.g. come, said, two, etc.

The English language contains approximately 43 sounds, but has only 26 letters to represent them. There are also cases where the same sound may be represented in several ways. (We use 379 letters or combinations of letters to represent the 43 sounds.) Consequently, learning to spell English is much more difficult than other languages which are more consistent, such as Russian. In the Russian language there exist 36 symbols to represent 34 sounds.

In the past there have been attempts to simplify the English spelling system. Among the promoters to reform spelling have been Ben Franklin, Theodore Roosevelt and George Bernard Shaw. Shaw even left money when he died to be used for this cause. In recent years there have even been bills introduced in Congress proposing a more simplified spelling.

It's easy to see that our spelling system is in itself a handicapping condition. It's no wonder that many children, especially those children with specific learning problems, have difficulty spelling.

SOME CAUSES OF POOR SPELLING

In addition to the generally inconsistent nature of our English spelling system, there are a number of other factors which could be causing a child to spell poorly. Some questions you may wish to ask are:

1. Does the child possess the prerequisite abilities such as fine-motor control, knowledge of the alphabet, etc.?
2. Does the child have a specific disability in memory (auditory or visual), written language, spoken language concepts, left-right orientation?
3. Are the spelling words at the appropriate language level for the child? Are they words which the child has in his/her vocabulary?
4. Is the child motivated to be a good speller? What is his/her attitude toward the task?
5. Does the child have a good image of himself as a learner? Or has the child been failing in so many areas that spelling is just one more area of failure?

It is important to look at why the child is not succeeding. It may very well be that your goal and the child's are different.

DIAGNOSTIC TESTS

The two spelling tests which we use at the center are subtests of the Wide Range Achievement Test (WRAT) and the Peabody Individual Achievement Test (PIAT). Although we rely much more often on the WRAT, we frequently find that the PIAT, which is a receptive spelling test, comes in quite handy.

The WRAT spelling subtest is an expressive activity, i.e. the child must write a dictated word. This test provides us with the opportunity to examine a child's errors to determine if there is consistency to his/her errors. (See section on the WRAT for sample errors.)

The PIAT spelling on the other hand is merely a test of recognition, i.e. the child is given four spellings of a word and he/she merely has to point to the correct spelling. For some children, particularly those with a good visual memory, this is a much easier task than complete recall which is required of them on the WRAT. Some children who are excessively shy or resist involvement are more willing to do this test because it requires merely pointing. On the other hand there are children who will do very poorly on this test because they are confused when they see so many possibilities for the spelling.

If you think that you may have a child who would perform better on a receptive spelling test and you do not have the PIAT, make your own. This could be done easily using the WRAT spelling words. For example, make a matrix with four possible choices. Then ask the child which spelling is correct.

an	adn
ann	and

must	muts
mus	muss

It is also important to do an error analysis of a child's mistakes on this type of test, too. For example, if the child chose "an" for "and" and "mus" for "must" you would want to explore further why the child is leaving off the end sound. Does he/she hear the sound?

Once again it is important to determine why the child is having difficulty with the task.

HINTS FOR SPELLING INSTRUCTION

1. Be sure that the approach emphasized in spelling is complimentary to the approach emphasized in the child's reading instruction. For example, do not teach the child to read by the whole word method and spell by phonics.

2. Be flexible as to the number of words the child is responsible for each week. If the child consistently handles only 10 words on the 20 word test, reduce his assignment to 10 words per week. Some children may only be able to master three or four new words per week. It is important not to overload them.

3. If the child is not motivated by the suggested spelling words allow him to create his own word list around a topic of interest e.g. motorcycles, horses, etc.

4. In order for a child to independently pursue a task, he must be able to achieve success at an 80% level. If the child's words are too easy he may lose interest as quickly as when they are too difficult. Be sure the child's spelling words are at the appropriate success level for him.

5. Use charts or graphs so the child may see her progress.

6. The slow learner will need distributed practice and frequent review to insure retention.

7. Spelling is for writing. Relate it to other subjects.

8. Praise the child for a job well done. Make him feel good about even his smallest accomplishments. To him it may have been a mountain.

9. Teach lessons and provide practice in dictionary usage and proof reading.

10. Teach the child to spell using his preferred learning style, i.e. if the child has shown a preference for the visual channel teach him spelling primarily via that modality.

TEACHING SPELLING TO THE CHILD'S PREFERRED LEARNING STYLE

VISUAL LEARNERS

The visual learner frequently has auditory channel deficits. He finds it difficult to relate symbols to their auditory counterparts and, therefore, may not transfer the learning of sounds. These children must learn each word as a unique entity as they may have difficulty relating part of a word to a whole.

Educational Procedures:

1. A child is shown the word on a card or list and given the name. The child looks at the word, says it, spells it, and says it again. The word is removed and the child spells it from memory. The child is given immediate feedback as to the accuracy of his spelling. The child spells it correctly two or three times more. It may work best for the child to close his eyes so that he may visualize the word as he spells it. He then writes the word from memory and checks the word against the stimulus card. The self corrected test procedure is important.

or

2. Some children may need a slightly different approach, i.e. one which has more kinesthetic involvement. The teacher shows the word and names it. The child looks at the word and then copies it on her paper. The word is then covered and the child writes the word from memory and then self-checks it two or three more times. This process is repeated two or three times. The child then writes it from memory and checks her word against the stimulus card.

Teaching Suggestions:

1. Post a list of the words most frequently asked, such as would, could, should, etc.

2. Help the child practice remembering the visual image of the word:

    a. Place several words on a flash card.
    b. Show each card quickly.
    c. Ask the child to write what he saw (or spell aloud what he saw).
    d. Hold up the card for checking.
    e. Repeat the process for practice.

3. Encourage the child to study each word closely, discriminating between letters of similar configuration (u-n, a-o, m-w, b-d) and noting the order of the letters.

4. Make the words visually attractive and colorful.

5. Stress visual imagery. Have the child close his eyes and make a creative picture of the spelling of the word. The more unbelievable the picture the more likely he'll be to remember it.

6. If the child is confused by auditory stimuli, give her the words only. Avoid adding unnecessary words. For example, do not give the child a spelling word in a sentence.

Motivational Activities

1. Allow the children to write the word in a variety of media.
   - glue on colored paper
   - yarn or rope
   - glitter or sequins stuck on glue
   - magic markers
   - sand on glue
   - finger paint

2. Let them write the word using media that can be eaten if the word is spelled correctly.
   - icing (you can buy it in the nifty squirt cans)
   - alphabet cereal
   - chocolate chips or M and M's
   - pudding

3. Have the student do activities in which he fills in the missing parts of words. Have the missing part be the danger spot in the word. For example, doct_r, trav__.

4. Use the filmstrip projector for spelling words. Put spelling words on transparencies. Push the strip through to show spelling words on the screen. Cover and show quickly for tachistoscope use. Words can also be written with certain letters left out to be completed by the child.

5. Let the children use the overhead projector to study their words.

6. Illustrate: Have the children draw pictures of the word, using each letter as part of the picture.

7. Have the children do crossword puzzles with new and review words. These can be made by teachers or students.

AUDITORY LEARNERS

Learners with visual channel disorders may not retain the visual image of a word and thus may need a more elemental or analytical approach to spelling. They may learn best through an auditory, or sound spelling approach.

Educational Procedures:

1. The teacher says a word, spells it and says it again. The child (with eyes closed to encourage visual imagery) repeats the word and spells it. This process is repeated three or four times after which the child writes the word from memory.
2. A slightly different approach involves the kinesthetic channel, too. The teacher says the word, spells it and says it again. The child then writes the word and corrects it as the teacher spells it aloud. The child writes the word two or three more times, each time correcting it via auditory input. He then writes it from memory.

Teaching Suggestions:

1. Give the child ample opportunity to listen to the word and to its spelling as someone says it aloud.
2. Train the pupils to observe likenesses and differences in beginning sounds, in beginning letter and letter combinations.
3. Say the word slowly, emphasizing the separate syllables of the word.
4. Emphasize the relationship between sound and the printed symbol.
5. Practice good enunciation and pronunciation of words.

Motivational Activities:

1. Let the student use a tape recorder to make her own tapes for study. Have the student say the word, spell it and say it on tape. Then play it over and over.
2. Let the children work as partners to study a word. Pair two auditory learners.
3. Have the pupils group words with similar sound elements: fun, run, sun; pan, fan, man.

MULTISENSORY LEARNERS

These may be children who have experienced problems with both auditory and visual memory--sequencing. Multi-sensory input may not always be the best method for all children. Some children may find themselves presented with too much stimuli under this approach.

Educational Procedure:

The teacher shows the word on a card, names the word, and spells it orally. The child looks at the word, spells it and then writes it on his paper. The teacher covers the word, and the child spells it orally from memory several times and then writes it from memory two times. The child writes it from memory and self checks it with the word card. Repeat procedures as many times as necessary.

Teaching Suggestions:

1. Include a great deal of practice in listening, saying words and writing.
2. Use manipulative material for the child to write words.
3. VAKT - (Visual, auditory, kinesthetic, tactile)
   Words may be traced over, used orally in a sentence, visually studied, traced and sounded out, until the word can be spelled and written independently.

Motivational Activities:

1. Sand letters may be used in a box where the learner can feel and say the letters and words they form.
2. Art project ideas:

   Use a variety of media for the child to write words. For example: clay, pudding, glue, yarn, rope, bread dough, fingerpaint, sandtrays, wooden, felt, beaded, or magnetic letters, typewriter.

   Have the child write words with a crayon on drawing paper, arranging the words in interesting ways.

ORAL SPELLING

This can work in two ways. In one, the child can take an oral spelling test, or practice her words orally. Good spellers in the class (or the teacher) can ask the words. In the second way, the teacher (or another student) can spell a word, and ask the child what the word is.

CHAIN SPELLING

Divide the group into two teams. The first player on Team 1 spells a word. Then the first player on Team 2 must spell a word beginning with the last letter of that word. The second Team 1 player must then spell a "chain word," and so on. Set a time for responses. Count one point for each correct spelling.

On the tape recorder, place the words for the group and have them follow directions in writing them in some activity.

Say the words orally to the group--see who can give back the most words. Each child has more than one chance. This is a good listening exercise.

The teacher can clap out the number of syllables of a word and a student who can point to a word with that number of syllables can go to the board, say it, and erase it if he is right.

ADDITIONAL HINTS FOR SPELLING SUCCESS

- Set a standard for the child. Expect her best work. Be sure that she is on a level where she can be successful.
- Praise the child for a job well done. Make him feel good about even his smallest accomplishments. To him it may have been a mountain.
- Use charts or graphs so the child can see her progress and know where she stands.
- Be certain the child's spelling words are at the appropriate language level for him.

SURVIVAL SKILLS

Survival spelling skills are those spelling skills which are most essential to functioning in our society. They include being able to write your full name, address, place of birth, date of birth, schools attended, etc. The survival skills of spelling prepare us for filling out job applications, voter registrations, bank account information, and so on.

Even those students with a severe spelling disability should be able to master the basic fund of information which they will be required to write at various times in their lives. Mastery of survival spelling words should be emphasized, particularly with junior high and high school students who are still exhibiting extremely poor spelling skills and do not seem to be making any progress in this area.

In teaching these survival spelling words it is important to stress nice penmanship so that when the individual is required to write this information it in no way creates embarrassment for him.

For these students who cannot master written spelling there are alternatives. It is not the end of the world. The tape recorder can be used as a vehicle for answering questions, creating stories, doing critiques or whatever the assignment may be. Because the child has a disability in spelling he should not be penalized in his expression of thoughts and ideas. Provide alternative ways for him to express himself.

FOURTEEN

APPROACHES TO TEACHING READING

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METHODS OF TEACHING READING

Reading - what could be more important to academic achievement? A child who learns to read has the capability of exploring on his own. Conversely, the student who has difficulty in learning to read finds his attempts to expand his knowledge blocked by the reading obstacle and often he may feel frustrated in his failures to reach beyond that obstacle.

This chapter is devoted to thinking about circumventing reading roadblocks and/or removing them altogether. The discussions and suggestions herein are designed to help you think seriously about a variety of approaches to reading and how those approaches might be adapted to meet the needs of each particular handicapped reader.

Much research has been conducted and literature published on the "right" way to teach reading, thus generating controversy and confusing the issue. This chapter will attempt to avoid controversy and adhere to the principle that the "right" way to teach reading is the one that works for the learner.

Sound teaching follows these steps:

(1) Gathering good diagnostic information.

(2) Looking for the learner's strengths and abilities to maximize learning.

(3) Fitting the method, material, and management system to the needs and strengths of the child.

(4) Approaching instruction in a systematic way by combining

  a) direct instruction with pupil response,
  b) drill or practice on skills taught,
  c) reinforcement of skills in a variety of contexts.

(5) Keeping good records of progress so that the student can see his own growth.

As you can see, you will simply be following the same processes with which you are able to write IEP's and to implement appropriate instruction in all areas of special need.

For clarity, we will divide reading into two components - word recognition and comprehension - and deal with them separately.

WORD RECOGNITION

In learning to assess word recognition skills, and the learner's preferred style, you learned about some basic approaches to learning words. The synthetic approaches (phonic and linguistic) involve taking pieces of a word and synthesizing or blending those pieces into a word. The analytic method (whole word, sight, look-say) teaches the word as a unit and then analyzes its parts to distinguish it from other words similar in shape and/or spelling. While synthesizing and analyzing are the two basic ways students appear to learn words, teachers may employ a variety of teaching methods. For your convenience, these methods are discussed in terms of emphasis of input.

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Remember that the material presented may not be as important as the way in which it is presented, and that many basal series may be adapted to emphasize the learner's strengths and learning style.

VISUAL EMPHASIS

Generally the whole word (or look-say, or sight) method is thought of as the main vehicle for heavily emphasizing visual input. Words are introduced in whole units in phrases, and in sentences. Meaning should be introduced and a memory link for careful and accurate analysis should be provided through direct instruction. This often means providing a picture clue, discussing the shape and/or length of the word, or visually discriminating the word from among similar words.

Rand-McNally's Young America Basic Reading Series, Macmillan R. Series, Ann Arbor's Kinder Fun Series, and We Study Word Shapes from Dexter and Westbrook and Peabody Rebus Reading are some basic instructional materials employing heavy emphasis on visual input. At the end of this chapter you will find a variety of other suitable materials for teaching whole words.

Any controlled vocabulary source is appropriate for teaching whole words. The Dolch list, the Fry Instant Words, or Wilson's Essential Vocabulary are among the possibilities. Also, any book in which vocabulary is introduced systematically prior to reading (like the old Ginn readers) is appropriate. Another good source of words is the childs own language (see the language experience approach) although vocabulary is difficult to control.

Concentrate on systematic direct instruction and practice in a variety of contexts for the greatest effects. The following are some suggested activities for direct teaching, practice and reinforcement of learning words visually as whole units.

1. Put the word on a small card. On the back, draw a picture or give some visual clue as to the word meaning. For example, the word down could have an arrow pointing downward on the d.

2. Write five sight words on the chalkboard. Read each one aloud together and ask the pupil to shut his eyes. Erase the word and ask which one is missing.

3. Practice each sight word in context. Write each new word in red to signal the pupil that he must recall the word from memory.

4. Have the child match a stimulus word from a list of visually similar words, such as those illustrated in the following chart.

bed	bid	bad	bud	dab	bed
hop	hip	hop	bop	hup	dip
run	run	rat	run	sun	nun

5. Play "Concentration" by making two sets of word cards and placing them face down. Each player gets to turn up two cards. If he turns up the same word, he may continue. If he turns up two different words, he must turn them face down again, and the next player takes his turn.

6. Print the words with a rubber stamp set. This calls attention to the sequence of letters.

7. Use anagrams to give the child a chance to visually manipulate words.

8. Give child paragraphs from old workbooks and magazines and ask him to go on a word hunt. Example: Give the child a marking pen and ask him to cross out words such as "the, and," etc. Cut these out, paste on cardboard and present as short assignments working through interest areas (sports magazines, etc.).

9. Use reading lotto games, word wheels, jigsaw puzzles, etc.

10. Use sentence strips cut up and pasted on prepared models. Child matches cut-up sentences to the model.

11. Have the student shut his eyes and revisualize letter by letter and then the whole word. Do this in conjunction with the other approaches, i.e., felt letters, anagrams, overhead projector, etc.

12. Prepare written sentences on worksheets. Teacher then reads sentences and purposely makes an error or errors. Child must read sentences and find and circle error.

13. Use configuration to teach big and small words.

14. Use graph paper to show configuration of words. These can be cut out, pasted on cards, typed by students, and alphabetized.

15. Cut particular words out of a newspaper or magazine. Mix them up and place them in a pile. Have the child match a) words which are the same even though they are printed differently; b) words which are mirror images, saw-was, on-no; c) words which are partial reversals, left-felt; d) words that are the same shape, sheet-shoot, or e) homonyms, there-their.

16. Have students type the sight words they are currently learning.

17. Make crossword puzzles, make crosstick puzzles, and make hidden word puzzles, using sight words from the basal series, the Dolch words, or the Fry Instant Word List.

18. Have the student start a card file of new words. Write the word and the definition on the front of the card. On the back, write the word in its proper context in a sentence.

19. Teach the pupils a method that they can follow consistently in attaching a new word. For example:
    1. Look at the word.
    2. See if any part of it looks like a word you already know.
    3. How does it begin? How does it end?
    4. Read the other words in the line and see what you think it should be.
    5. Listen for the word in the rest of the lesson or when others speak.

20. Use words commonly confused in multiple choice situations. Have the student underline the correct word. Example:
    1. He wanted to (walk, wash) his clothes.
    2. He didn't know (when, what) to do.
    3. He put it over (their, there).
    4. I (will, well) go with you.

21. Picture dictionaries can be helpful in learning words and associating meaning. Encourage children to make their own dictionaries with either magazine pictures or their own illustrations.

22. Use the sight words causing difficulty in sentences. Underline the words causing difficulty as in the examples:
    1. I thought it was you.
    2. I could not go even though I have time.
    3. He ran right through the stop sign.

23. Words can be presented to children in pairs to facilitate memory. For example, salt and pepper, bread and butter, black and white, hot and cold, etc.

24. With sight words on cards, a child can occasionally review words previously learned by placing the words he knows in a "Friends" pile and the troublesome words in an "Enemies" pile. Students may work in pairs.

25. Duplicate a sheet with groups of words that are similar in configuration. Direct the child to circle the word you read. For example:
    1. at is it in
    2. see saw sea sip

26. Print letters or words on removable gummed labels on the squares of a checkerboard. Let the children play checkers but require them to name a letter or word before they make a move.

27. Provide children with words in a mixed-up order and ask them to arrange the letters correctly. For example, present cat as atc, bag as agb, etc.

28. Write a number of letters on the chalkboard. While the children's eyes are closed, erase one letter. When the children open their eyes, ask them to identify the missing letter.

29. Use the Language Master to teach new words or review those previously taught. Use the blank cards to program the most persistently miscalled words.

30. Prepare a tape recording of the most common sight words. Have the child listen to the tape through earphones and follow a worksheet. The teacher's voice says, "Number 1 is guess, Number 2 is could," etc. To test a child, give him a word list without numbers and let him mark the worksheet as follows: "Put number 1 in front of guess; Put number 2 in front of could"; etc. Check by using a key.

31. Word Bingo, similar to Bingo but using words may be played with small groups of children.

32. Label objects around the room and periodically review these labels with the children. Mix the labels and have a child put them in the proper place.

33. Draw a baseball diamond on the chalkboard. Place sight words printed on flash cards on the chalk ledge. Label the words single, double, homerun, etc. Groups of children can play baseball by reading the words. This activity can also be adapted to football, fishing, mountain climbing, etc.

AUDITORY EMPHASIS

If a student benefits from emphasis on auditory input, he is in luck as far as reading is concerned. The synthetic approaches to reading (phonic and linguistic) are the most widely used in basal readers, and an excellent direct teaching program (DISTAR) relies heavily on auditory skills.

Generally, teach the basic sound/symbol relationships, blending skills, and phonic and structural rules. Again, teach systematically, provide memory techniques, and see that the skills are practiced in a variety of contexts to insure generalization.

The following are some suggested activities for teaching reading with emphasis on auditory input.

1. Use a phonic or linguistic approach to reading. Sullivan, SRA, DISTAR and Miami Linguistic are common programs emphasizing auditory approaches as are the majority of basal series. (See the listing at the end of the chapter for other materials).

2. Let children read orally often and encourage "listening to self" when reading silently.

3. Instruct children to classify a number of pictures according to initial or final sounds. Appropriately labeled boxes are helpful for this activity. Have the children place pictures with the beginning /s/ sound in one box, the beginning /f/ sound in another box, etc.

4. Give each child the same number of oak-tag cards with words written on them. Ask for all the cards that begin with a certain sound, rhyme with a word, etc. For example, ask for all the cards that "end with the same sound as bag." Continue to ask questions until each child's pile of cards is depleted.

5. Call out words which have the same blend in either the initial or final position in all the words. Let the child tell where he hears the blend. For example, chip, chum, charge, search, patch, march, etc.

6. Give the child the name of someone in the room. Let the child make up two descriptive words which have the same initial consonant sound. For example, prim, pretty, Paula or skinny, silly, Sam.

7. Ask children to blend different consonants to a specific word family. For example, blend initial consonants to the "in" family (e.g., pin, fin, tin, etc.).

8. Say a word, such as "sad," and require the child to provide a word which rhymes with it but has a different initial consonant.

9. Ask the children to say all the words they know that begin with a specific sound.

10. Make up nonsense sentences with the child using the same letter at the beginning of each word. Examples could include, "Bad Billy bit blueberries," or "Holy Harry has hot hands."

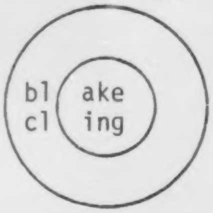
11. Provide children with a number of individual oak-tag cards with one sound on each card. Instruct the child to listen carefully and hold up the letter he hears at the beginning (or end) of each word.

12. Give the children two cards numbered one and two. As you say a word instruct them to listen for a specific sound and indicate whether they heard it at the beginning or ending of the word by holding up card #1 or card #2.

13. Have children draw a word from a box containing words with blends. The child must pronounce the word he chooses and give another word which begins with the same blend.

14. Print words with blends on oak tag and cut the word after the blend. Mix up a number of word parts and have the child sort them correctly. Gradually increase the number of words as the child succeeds with this task.

15. Make two concentric circles, one with blends and the other with phonograms. Have children rotate the circle and read the words. Circles for initial consonants can also be made.



16. Give each child a large piece of paper with a blend written on it. Write a phonogram on the chalkboard and ask children to make a word with their blend and the phonogram on the chalkboard.

17. After children know specific sounds, give them three to five-letter nonsense syllables. Ask them to blend the sounds. The syllables can become progressively longer as the child improves in this ability.

18. Ask the child to blend specific sounds to a given list of phonograms. For example, blending the /p/ sound to "at," "in," "it," "an," etc. This activity may be duplicated for seatwork or done at the chalkboard.

19. Provide the child with a picture of a specific object, such as a block. Below the picture, appears:

_____ _____ o c k

Have the child supply the missing consonant blend, either by writing in the missing part or saying it.

20. Use configuration to teach sight words, but have students classify them phonetically.

21. Use rhythm structure for reading tasks and rhyming and blending word games.

22. Use taped stories and taped reading and phonics activities.

23. Use the language master to help a child learn a sight vocabulary.

24. Use choral reading for reinforcement activities.

25. Use music whenever possible; songs and poetry are natural for the auditory learner.

KINESTHETIC - TACTILE EMPHASIS

Teaching reading skills using purely kinesthetic and/or tactile techniques would be a difficult task. However, for some children moving or touching facilitate learning. You will find that kinesthetic and tactile activities can be used with either synthetic or analytic approaches to word acquisition and are mainly child response activities. The following suggestions are ways of emphasizing kinesthetic and tactile activities.

1. Trace or form letters and words in any of the following media:

   fingerpaint
   salt
   sand (wet)
   sandpaper
   felt
   rolls of clay
   instant pudding
   watercolor and brush
   cornmeal
   corrugated cardboard

2. Make letters and words out of pipe cleaners, yarn, felt, glue, cheerios, etc., and have the student trace them.

3. Trace letters and words on the child's back, hand, or forehead.

4. Have the child trace letters and words in the air. Vary the activity by using a leg, or the head for movement.

5. Have one or more children form shapes or symbols with their bodies.

6. Make large letters and words and have the child crawl or walk on them.

7. Have children walk, skip, or hop the patterns of words or letters.

8. Make an alphabet line (like a number line) to teach sequencing and alphabetizing. Have the child walk, crawl, or bounce a ball on the letters.

9. Have children tap or clap syllables in words, or words in phrases.

10. Paint the alphabet on a piece of oil cloth. Place the cloth on the floor and have a child walk at random from one letter to another. Ask children to reproduce the sequence. This activity may be varied by walking through letters that spell specific words. Ask children to reproduce the letter and say the word.

MULTISENSORY APPROACHES

As you can see, it is nearly impossible to teach reading without including visual or auditory input. When visual, auditory, and kinesthetic-tactile activities are combined, the approach is actually multisensory as all modes are being used.

Fernald, Slingerland, and Orton-Gillingham are examples of widely used multisensory programs.

Many experts warn that when there is a disturbance in integrative brain functions, providing input through all channels may only overload and confuse the learner. You will want to be alert to this possibility and if overloading does occur, withhold one or more of the modalities while combining the others.

With many children, a multisensory approach is highly successful as it can be adapted to synthetic or analytic preferences of the child and to any basic reading instructional material.

The following are some suggestions for combining sensory inputs.

1. Practice writing the word while saying it. Trace over the letters while saying each one, then say the whole word. Trace the word in the air, shut your eyes and trace it, write it on your partner's back, write it in large letters on the chalkboard, write it on paper.

2. Have child "burn" in each new sound with not more than one sound per day. Explain to the child that this is very scientific, that he will learn the sound in a way that he can never forget it. The idea is to overlearn each sound. Example: "A" as in apple -

   a. Start with large muscle kinesthetic modality. Write letter in air, saying the sound over and over. "A as in apple". Eyes open, then eyes closed. Continue to say sound and trace letter on butcher paper using color coding, then write on blackboard, tracing huge letters.

   b. Add tactile, using sandpaper, corrugated paper, cornmeal and different textured materials. Continue to auditorize and do with eyes closed as well as open.

   c. Add other of the kinesthetic and visual ideas previously suggested, all to introduce just the one sound until overlearned.

3. a. The teacher writes a word with a felt pen on plain paper using blackboard size manuscript or cursive writing.

   b. The child "gets a picture of the word in his mind's eye", says the word as he traces it with his finger and then with his pencil.

   c. He repeats the process as many times as necessary in order to learn to write the word without looking at it.

   d. He writes the word and checks it.

   e. After he learns the word, he files it alphabetically in his own word-file box.

LANGUAGE EXPERIENCE

There are times when books and other prepared instructional materials seem ineffective or inappropriate for the learner. For example, a beginning reader, a "non-reader", or a turned-off reader may find a book too difficult or too threatening to attempt. If this is the case you may want to try the language experience approach to reading instruction.

The language experience approach can produce a wealth of non-threatening reading material with which to begin instruction. This is accomplished simply by the student telling a story and the teacher writing it down for him The student and teacher re-read the story together, and the story can be used for work on sight vocabulary, for word analysis, for oral reading practice or for simple comprehension exercises.

This approach can be effective with children having reading difficulties because:

1. It uses their own words, their own ideas, and their own interests. No one else's materials will be like theirs.

2. It requires active participation in the process and the ideas come from within, making the stories interesting to the individual.

3. The words the student reads are words in his own vocabulary therefore, they are of importance to him and he already understands them.

4. It relates reading and other communication skills (listening, speaking and writing) to the student's own experiences.

5. The student can feel that his own ideas are worthwhile.

As you may well imagine, this technique is very flexible and can be used with students of any age or reading ability.

To use this method steps similar to the following are suggested.

1. The student describes some event or item of interest, or tells a story about it.
2. As the student dictates the story (or sentences) write his words on paper with him seated so he can observe his words being written.
3. After it is written it may be typed or printed on a chart.
4. The student rereads the story with either the teacher or the student pointing to each word as it is read.
5. The student illustrates the story if he wishes.
6. Place difficult words on 3x5 flash cards. The student writes the word on the card saying each letter aloud as he writes it.
7. A student could combine experience stories into his own books if he wishes, and illustrate each chapter or story. He could design a cover and illustrate that. These books could be kept in a student's personal library or with other student's books in a group library where they could read each others and share experiences.
8. Stories can be combined into class newspapers, made into scrapbooks, or be used as bulletin boards.
9. After a student has read a story several times he may wish to take it home to read to his family.
10. Personal letters are also effective language experience reading tools.
11. Have the student record his stories on tape then have an aide or volunteer type the story for the following day. (One teacher made a recording booth with a refrigerator box and a cassette recorder just for this purpose.)

Stories should be relatively short until the student gains confidence in his ability to complete the story. Gradually expand the activities to include finishing stories read aloud and retelling another story in his own words.

The language experience approach to reading seems to be an ideal method for improving the self-concept of the reader.

A NEUROLOGICAL IMPRESS METHOD OF READING INSTRUCTION

The neurological impress method, or shadow reading, may be employed in an effort to break the slow, stumbling, faltering oral reading habits displayed by so many poor readers. This method involves suppressing the old reading style by simultaneously feeding in a new more fluent reading pattern.

This is a system of unison reading process whereby the student and the teacher read aloud, simultaneously, at a rapid rate. The disabled reader is placed slightly to the front of the teacher with the student and the teacher holding the book jointly. As the student and teacher read the same material in unison, the voice of the teacher is directed into the ear of the student at close range. In most instances the student has his right hand free and he is able to use his finger as a locater. He slides his finger along the line following the words that are being spoken. The finger must be at the location of the spoken word. During the first reading the instructor and the student read the same material together aloud, the instructor reading louder and slightly faster than the student. The same paragraphs or sentences are repeated several times until a fluent normal reading pattern is established. (This initial repetition of material over and over again is dropped as soon as possible.)

In order to establish the normal flow of the true reading patterns, the student is not corrected at any time and he is encouraged to refrain from stopping on difficult words or returning to words he has already read. He is told to slide across the words to the end of the page, to try to imagine he is sliding on ice and to make no effort to think about individual words, in fact, not even think he is reading. He is told to do the best he can, just say the words and not try to read them.

As the student and the instructor read together, the instructor accompanies the words he is reading with a smooth continuous motion of the index finger under the sentence at precisely the same speed and flow of the verbal reading. Later in the sessions, the student can be allowed to take over this activity, but if coordination is difficult the instructor should take over the duties of sliding along the words.

As the sessions progress and as the opportunities present themselves, the instructor should lower his voice or reduce his speed so there is an infinitesimal lag behind the student's reading. The student and instructor alternate between leading and following.

After working for several sessions with a student the teacher will generally be able to adapt himself to the system and find very little trouble in gearing to the correct speed and approach for the student.

The instructor should not interrogate the student as to content or understanding of the material he is reading. Watch for signs of fatigue, shortness of breath, or dryness of throat and allow recovery time. Always comment positively on the success of the child, call attention to his fluency and suggest he is now able to read.

A paper by R. G. Heckelman (1962) analyzed an experiment he conducted using this method. He found that

1) an oral neurological impress reading method is one way of breaking the "phonics-bound" condition non-fluent readers often display; and

2) a neurological network systems concept of reading appears to operate (and that a student reads best when the method is geared to the systems operating best in the child).

He hypothesized further that this method is probably the most direct and fundamental as it involves the fewest neurological systems. The child is exposed only to accurate, correct reading patterns, bypassing the requirement of unlearning mistakes and learning corrections.

CONTEXT CLUES

It is difficult to determine whether a discussion of using the context belongs under "word recognition" or "comprehension." The ability to use the context of a selection to aid both word recognition and comprehension is a valuable tool for students. Through this method a student can decode words he may have felt were too difficult for him; it also allows a student to read and comprehend a selection although he may have difficulty reading all the words correctly. For the reason that some students rely heavily on context clues to recognize words, these activities have been included at this point.

The following are some suggested activities to help a student learn and use context when reading:

1. Show the student that it is possible to derive the meaning of words from their context. For example:

    1. The careless boy did his work in a haphazard manner.
    2. He felt that although his work was imperfect, it was still good.
    3. They called in a mediator to help settle the problems between labor and management.

2. Use multiple choice questions in which the student fills in blanks; e.g., Jack ____________ a black pony. (rock, rode, rod). Using words which look alike also will give the student practice in phonic and structural analysis.

3. Make tape recordings in which key words are omitted. Give the pupil a copy of the script and have him fill in the blank spaces as the tape is played.

4. Have the student practice reading up to a word, sounding at least the first sound, and then reading several words following the unknown word: e.g., A cow and her c_____ drank from the water hole. (calf). In this case the pupil should be able to say calf if it is in his listening-speaking vocabulary. He should also realize that a calf is the offspring of a cow.

5. Make a series of sentences using words which are spelled alike but may have different pronunciations or meanings: e.g., read, lead. Have the pupil read sentences using these in proper context, for example:

    He read the book.
    He will read the story.
    It was made out of lead.
    He had the lead in the play.

CLOZE TECHNIQUE

The Cloze technique is a comprehension drill that tests the student's ability to use language patterns and context clues. To construct a Cloze drill, the teacher first selects a passage of 250 or more words from a basal reader, content area book, or a trade book. The passage should be typed on a stencil or ditto so that each student may have his own copy. Type the first and last sentence intact. In the remainder of the passage every nth word should be omitted, and a blank approximately 15 spaces long should be left. The nth word could be every fifteenth, tenth, eighth or fifth word. Usually proper nouns are not omitted.

To evaluate the Cloze technique, count the number of blanks completed with the exact omitted word. Divide this number by the total number of blanks in the passage. If the student has completed 45%-50% of the blanks with the exact omitted word, the material is on his instructional level. If 60% or more are exactly completed, the material is on the student's independent level.

To vary the use of the Cloze technique use any of the following:

1. Vary the type of answer from demanding the exact word omitted to accepting a reasonable substitute (synonym or other word that makes sense with the rest of the passage).

2. Vary the means of correction--self correction, teacher correction, class discussion of passage compared with original passage.

3. Vary the frequency of words omitted from every fifth to tenth to twentieth word.

4. Vary the type of omissions from a mechanical deletion, such as omitting every tenth word, to a subjective deletion such as omitting only nouns and verbs that would test for story comprehension, to a subjective deletion that would omit structure words and really test language knowledge more than subject knowledge.

5. Vary the kind of subject matter from short stories, to history, to physical education, to social studies or science.

6. Vary the time allowed from unlimited to three minutes for a short passage. Speeding up sometimes produces excitement.

7. Vary who makes up the Cloze technique passage. It doesn't have to be the teacher.

COMPREHENSION

Educators will agree that the real purpose for teaching reading skills of any kind is to facilitate understanding of the material being read. Good independent comprehension is the ultimate goal of reading instruction.

Agreement on what skills should be taught and the order in which they are most effectively introduced has not been so easily reached. Each developer of a hierarchy or a taxonomy will argue (and produce evidence) that he has provided the most logical sequence for teaching comprehension.

For purposes of this chapter, the focus will be on the learner rather than on the skills or the hierarchy of skills. Some suggestions are offered in a variety of categories, but the most important consideration is the individual student.

Before attempting to "teach" comprehension, look back at the diagnostic information you have gathered on this student. Consider the situations in which his comprehension appears best. Some students need to read orally in order to remember what they have read, due to such needs as hearing the material or focusing attention on each word by pronouncing it orally. Others read better silently as oral reading may create anxiety about correct pronunciation, or oral reading may distract and confuse the reader from remembering by demanding too many kinds of input modes. Always allow the student to use the method which seems easiest for him before requiring him to demonstrate comprehension.

Another consideration should be the kind of question to which the student is already able to respond. For example, many readers never seem to progress beyond memorizing facts from the material. Others may be able to generalize and interpret the main idea, yet fail to recollect specific details which support their interpretations. For some, comprehension remains on a literal level, with implications, predictions, or cause-effect relationships never apparent.

After assessing the student's success areas, it will be possible to check on comprehension using those specific kinds of questions and gradually introduce other comprehension skills as the student increases success.

To help you think about the kinds of comprehension questions you may require, Norris Sanders, in his book Classroom Questions: What Kinds?, has categorized questions in this way:

1. Memory - recognizing or recalling information given in the passage.
    - a. for facts - as, Who, What, When, Where.
    - b. for definitions - as What does _____ mean? Define _____. Explain what is meant by _____.
    - c. for generalizations - as, What events led to _____? How did _____ and _____ cause _____?
    - d. value judgments - as, What is said about _____? Do you agree? What kind of person was _____?

2. Translations - expressing ideas in different form as, Tell me in your own words about_____. How could you illustrate_____? How could we restate_____?

3. Interpretation - seeing relationships among facts, generalizations, or values

    a. comparative - as, How is_____like_____? Is_____the same as_____? Why not?
    b. implications - as, What will_____and_____lead to? What would happen if_____?
    c. inductive thinking - as, What facts support the idea that _____? What is the author trying to tell you about_____?
    d. quantitative - as, How many times did_____? How many causes of_____can you name?
    e. cause and effect - as, Why did_____happen? Why did_____ do_____? How did_____and_____affect_____?

4. Application - solving a problem that requires the use of facts, generalizations, and the like, as How can we prove_____? What plans would we make to_____? How could you use this information to_____?

5. Analysis - recognizing and applying logic to a problem; analyzing an example of reasoning, as, Some people believe_____. Is this correct? Why not? Why do you suppose the boy_____?

6. Synthesis - using original, creative thinking to solve a problem, as, What other titles could you think of for_____? What other ending_____? How would you like to change this story?

7. Evaluation - making judgments, as, Did you enjoy this? Why? What do you think of_____in this story? The author said_____. Is this a fact or his opinion.

It is also important to consider the mode of output you may require from a student. That is, how is he to respond to the questions? Explore a variety of formats - true and false, essay, sentence completion, matching multiple-choice, fill-in - as well as various modes of expression - oral, written, drawn, spoken to a recorder, and so on.

Some specific comprehension skills you may want to help a student to develop may be:

- ability to locate answers
- ability to recognize important details
- ability to follow a sequence
- ability to follow directions

. ability to predict outcomes

. ability to grasp main ideas

. ability to draw conclusions

. ability to read critically

You may also wish to add such important study skill techniques as:

. ability to determine organization

. ability to organize and summarize

Most of the readers to whom you will devote special effort will be dealing heavily with comprehension at the literal level, with some work on the interpretive step and probably very little on the evaluative level. Barnell-Loft has published the Specific Skills Series, a group of booklets at all reading levels, designed for specific comprehension skills. You may find these booklets of great value to your reading program because of the specific nature of the exercises.

The following are some suggested activities to get you thinking about comprehension.

1. Show a picture and have students determine what is happening through discussion.
2. Exercises involving short paragraphs on various subjects can be presented for the students to determine the subject of each.
3. Present flash cards with items on them. Then have students recall items when the flash card is removed.
4. Have students find key words in short paragraphs.
5. Present cards with directions, then have students do in order the things listed: i.e. "Stand up--turn around--raise your hand--whistle--sit down."
6. Cut up story and pass out parts. Have students read each selection in proper sequence.
7. After reading a story, ask the students to compose a telegraph repeating the events of the story or of a certain part of the story. Limit the telegram to a specific number of words.
8. Have students read newspaper articles from which the headlines have been deleted. Students select the correct headline from a group provided.

9. Select appropriate title for paragraphs, chapters, or short selections. (The teacher might also have the students select the best title from several listed.)

10. After reading a paragraph have the students tell in their own words what the author has said.

11. Teach the students to survey reading selections before reading them to get a general idea of what the author will present. Point out devices used by authors to emphasize certain passages. Emphasize chapter titles, headings, subheadings, italics, indentions, etc.

12. After students have read a story, print a list of phrases on the chalkboard. Some of the phrases should be related and others unrelated to the story. Ask the students to choose those that pertain to the reading selection.

13. After reading a story, discuss it with the students listing the main ideas in the story. Select a student to illustrate specific story events with drawings. The story can be retold by rolling the drawings on a "TV" screen or overhead projector in sequence.

14. Have the students underline the sentences in paragraphs that best represent the main idea; be certain there is a main idea and a sentence that expresses it.

15. Ask the students to write down all the details from a selection. Have them classify the details from their list as 1) important, 2) helpful, but not essential, and 3) unnecessary.

16. After students have read a story, distribute three or four sentences which indicate a sequence of events pertaining to the story. Have the students arrange them in proper order.

17. Ask children to read a stimulus sentence and four multiple-choice responses. Have the children select the correct multiple-choice responses. To insure exacting reading, more than one response may be correct. For example,

    Mary and John are eight-year-old twins in the third grade at Smith School.

    a. John is one year older than Mary.
    b. John and Mary go to the same school.
    c. John and Mary were probably born in the same year.
    d. Mary and John do not have any other brothers and sisters.

18. Encourage students to indicate exactly where in a particular story they first knew it was sad, funny, etc.

19. Read the introduction or title to a story or chapter and then anticipate with the student what the author is going to say.

20. Show a series of pictures from a story and ask the children to tell, in writing or orally, what they think the story will be about.

21. Read to a certain part in the story and then ask the children to tell or write their versions of the ending.

22. Let one child take the role of a character in a story that the class has read. The rest of the class should try to guess the identity of the characters by considering clues given to them by the impersonator.

23. Have children read a story on "how-to-do" some activity. Upon completion, ask them to perform the activity in sequence, e.g., building a kite, making soap, baking a cake, etc.

24. Distribute specific instructions on paper slips. Request children to carry out the instructions. For example, "Put all of the books in the library corner in order." or "Pass out a yellow piece of paper to each girl in the room."

25. Tape the auditory portion of a television show and have the students interpret what is happening.

26. Have students supply endings to stories.

27. Have students write about senses applied unusually i.e. -- Write about:

    . the sounds of breakfast.

    . the smell of home.

    . the feel of a motor trip.

28. Have students write descriptive phrases about others in the room, then read them and have the other students guess who it is.

29. Have students do exercises on similes, metaphors, and figurative speech.

30. During story discussions, ask many "why" questions - why a character thought, behaved or reacted as he did. Have pupils locate passages in the story to support thier answers.

31. For many students, it will be more advantageous to provide the questions prior to requiring reading. This sets a specific purpose for reading and allows the student to adjust his reading rate accordingly.

It would be impossible to list all of the excellent resources on the teaching of reading or all of the instructional materials designed for reading. The following pages are (1) a skeleton list of references on reading topics, (2) a basic list of reading materials categorized by word attack method, and (3) a bibliography of professional books.

Language experience

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Instructional Materials for Reading

A. Whole Word (Look Say) Method

Books

1. Sheldon Series		Allyn Bacon
2. Houghton Mifflin Series		Houghton Mifflin
3. Ginn 360 or 720 Series		Ginn Co.
4. Jim Forest Series		Addison Wellesley
5. Wildlife Ad Series		
a) Butternut Bill		
b) Monster Books		
c) Leonard Time Machine		
6. Scope Reading Series	5.0 - 6.0	Harper Row

Format--Worktext/Workbook

Name	Level	Publisher
1. Michigan Language Program	Level A Book 3	Ann Arbor Publ.
Michigan Language Program	Level B Book 4	Ann Arbor Publ.
Michigan Language PRogram	Level C Book 5	Ann Arbor Publ.
2. My Puzzle Book	Book 1	Garrard Publ.
3. My Puzzle Book	Book 2	Garrard Publ.
4. My Green Puzzle Book		
Titles within Series:		
a) Puzzle Fun	Readiness	Mc Cormick-Mathers Publ. Co.
b) My Red Puzzle Book	1^1	Mc Cormick-Mathers Publ. Co.
c) My Blue Puzzle Book	1^2	Mc Cormick-Mathers Publ. Co.

Format--Games

1. Group Word Teaching Game, E. Dolch	P	Garrard Publ.
2. The Syllable Game, E. Dolch		Garrard Publ.
3. Word Bingo Game (Bank St. Reading Program)	PP	Macmillan Co.
4. The syllabascope and related Word Sets	4.0-6.0	Woodcrafters Guild St. Albans School
5. Distar and Strategy Games, S. Engelmann		SRA, Inc.

A. (cont) **Whole Word (Look Say)**

Format--Kits

Name	Level	Publisher
1. Ed Mark	Inter.-Jr. HI (MR)	Edmark Associates
2. Flash-X		Educational Developmental Labs
3. The First Talking Alphabet I, F. Fennkopf, et. al.		Scott, Foresman & Co.
4. Children's song's, Beth Clure, L. Wood	P-1.0	Bowmar Publ. Co.
5. Distar Reading II, Engelmann & Bruner (Sight Words--39 Lessons)		SRA, Inc.
6. Durrell-Murphy Phonics Practice Program (Durrell & Murphy) (Helps to dev. sight words)		Harcourt Brace Jovanovich

Format--Filmstrips

Name	Level	Publisher
1. Sights and Sounds Filmstrips	K-8	Random House
Beginner Books Filmstrips Set 1 a) Green Eggs and Ham -- Dr. Seuss b) The Nose Book -- Al Perkins		
Beginner Books Filmstrips Set 2 a) The Cat in The Hat -- Dr. Seuss b) Are you My Mother -- P. D. Eastman		
Sights & Sounds Filmstrips Set 1 a) Frederick -- Leo Lionni b) The Winter Picnic -- Robert Welber c) Big Wheels -- Peter Lippman		
2. Sights and Sounds Filmstrips Set 2 a) Big Dog....Little Dog -- P. D. Eastman b) Swimmy -- Leo Lionni c) I'll Teach My Dog 100 Words -- Michael Frith		

Format -- Prepared Cards

Name	Level	Publisher
1. Sight Phrase Cards, E. Dolch	2.0-up	Garrard Publ.
2. Whitman Flashcards	P	Western Publ.
3. Primer Words Flash Cards	P	U.S. Toy Co.
4. Picture Word Cards, Dolch		Garrard Publ.
5. Dolch Consonant Cards, Dolch		Garrard Publ.

Phonics Method

Reading Books/Booklets

Name	Level	Publisher
1. The Reading-Motivated Series		
a) Desert Treasure	4.5	Hefferman, Richards & Salisbury
b) The Secret of the Lonesome Valley	4.7	Myriam Toles
c) Adventures in Apache Land	5.3	Myriam Toles
2. Phoenix Reading Series	3.0 - 6.0	Prentice-Hall
3. Learning to Read While Reading to Learn	4.0	Century Communications
4. Building Reading Skills Series		McCormich-Mathers Publ.

Format - Workbook/Worktext

1. Palo Al to Sequential Steps in Reading		
2. M C P Skill Booster		Modern Curriculum
3. Working with Sounds Series Series Books A through D		Barnell Loft
4. Word Attack	High School	Harcourt Brace Jovanovich
5. Keys to Independence in Reading	4.0 - 6.0	Economy Co.
a) Down Bright Roads	4.0	
b) Tales to Enjoy	4.0	
c) Through Broad Fields	5.0	
d) Stories to Treasure	5.0	
e) Into Wide Worlds	6.0	
f) Adventure to Remember	6.0	
6. Sound-Off	1.0	Educators Publ. Svce.

Format - Kits

1. How You Talk		Audio Education
2. Phonetic Word Cards	Gillingham	Educators Publ. Service
3. Distar		S.R.A
4. Speech to Print	Durrell	Harcourt Brace Jovanovi

Phonics Method

Format - Prepared Cards

Name	Level	Publisher
1. Phonics Is Fun		Modern Curriculum Press
2. Fun with Words	Boning (K-12)	Dexter & Westbrook
3. Dolch Vowel Cards		Garrard Press
4. Webster Word Wheels		Webster Publishing
5. You Can Read	1.0-3.0	Milton Bradley

Format - Games

1. Go Fish		Remedial Education Cen.
2. Bingo Band		Lyons & Carnahan
3. Blends Race		Lyons & Carnahan
4. Dolch Consonant Lotto		Garrard Press
5. Riddle-Riddle-Rhyme	K-12	Dexter & Westbrook

Format - Filmstrips

1. What's the Word		Houghton Mifflin
2. Transitional Phonics TP-5		Teaching Technology Corp.
3. Fry Phonics Program	Fry	Learning Through Seeing

Format - Cassettes, Tapes & Records

1. Directional Phonics Tapes		Teaching Technology Corp.

LINGUISTICS

Books

1. Merrill Linguistic Readers Book A through Book K	1.0 - 6.0	Merrill Publishing Co.

Books

2. The Linguistic Series		Benziger, Inc.
a) Six in a Mix	Primer	
b) It Happened on a Ranch	1.0	
c) Sea of Magic Ink	2.0	
d) Winging through Lights and Shadows	3.0	

LINGUISTIC METHOD

Name	Level	Publisher
3. Let's Read Series		Clarence Barnhart, Inc.
4. Basic Reading Series a) Six Ducks in a Pond b) A King on a Swing c) Kittens and Children d) The Purple Turtle		
Format - Workbook/Worktexts		
1. Miami Linguistic Reader		D.C. Heath Co.
2. Recipe for Reading		Educators Pub. Service
3. Let's Look Series		Clarence Barnhart, Inc.
4. Sullivan Reading Program		Behavioral Research
5. Hear Ye! Hear Ye!	5.0	Benefic Press
6. Breaking the Sound Barrier		Macmillan Co.
Format - Prepared Cards		
1. B R S Satellites		S R A
2. Phonic Word Blend Flip Cards		Kenworthy Educational
3. Learning Street		Macmillan
Format - Games		
1. Ends 'n Blends		Nashville Products Co.
2. Uno-Phonics Game		Kenworthy Educational
3. The New Linguistic Block Series		Scott Foresman
Format-Kit		
1. Psycholinguistic Color System	Kg. I and L.D.	Learning Systems Press

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FIFTEEN

RECOMMENDATIONS RELATING TO SPECIFIC LEARNING PROBLEMS

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Throughout the previous chapters discussing the assessment of children and instructional planning for them the importance of considering both strengths and weaknesses has been emphasized. While it is particularly important to capitalize on the student's strongest learning channel(s) during instruction, the weaker areas should also be given adequate opportunities to develop.

The following teaching strategies and activities can be incorporated into your instructional plan to best accommodate the student's preferred learning method as well as strengthen his deficit area(s). The areas of Visual Perception (memory, discrimination, reversals/inversions); Auditory Perception (memory and sequencing, discrimination, hearing impaired); Language (receptive language, inner language, vocabulary and expressive language); Attending and Motivation (countoons) are addressed. Most of the activities listed within each one of these areas involve more than one modality. For instance, in the section on Visual Perception, the stimuli may be both visual and auditory, visual and haptic or all three (visual, auditory & haptic). However, the modality emphasized for input will be predominantly visual. You will need to use the information you have gained about your special learner to select the activities which employ the modality combinations most effective for him.

ACTIVITIES TO IMPROVE VISUAL MEMORY

Visual Memory is described by Valett (1967) as "the ability to recall accurately prior visual experiences." This skill is essential to students learning to read by analytic as well as synthetic methods, using flash cards for drill purposes, and in spelling some words. Some possible explanations for a deficit in this area are:

- the child does not attend well or is visually distractible; the child may have visual perceptual problems
- this may be one part of an overall malfunction of the child's memory capabilities
- the child may not be aware that he needs to retain visual input
- the child is disinterested or uncooperative

The following are some suggested activities to improve a student's visual memory skills:

1. Arrange a tray of three unrelated objects. Allow the child to view them for 5 seconds. The tray is then removed and 3 other objects are added to the original 3. The objects are rearranged and shown to the child. He is asked to select the original 3 objects.

2. Display 5 related objects (animals), toy bear, dog, cat, cow, horse. The child watches as the teacher places the objects in a row. He then hides his eyes while the teacher covers or removes two objects. He must then tell which objects were hidden or taken away.

3. Show the child a picture with missing parts. Direct the child to draw in the part that is omitted. Some examples include:

   a. A tree without a trunk
   b. A cup with a handle missing
   c. Faces with various parts missing (nose, ear, etc.)
   d. A child without a shoe
   e. A house without a door

   Begin by requiring the child to draw in parts to match the sample drawing. Gradually make the missing parts less obvious.

4. Allow children to view pegboard, marble board, or bead designs for a short period of time and then ask them to duplicate the design. Children working in pairs may also construct their own designs.

5. Write a number of letters on the chalkboard. While the children's eyes are closed, erase one letter. When the children open their eyes, ask them to identify the missing letter. Words can also be used for this activity.

6. Cut apart cartoon strips and paste them on oak-tag. Ask children to reassemble the cartoon in the correct order.

7. Provide children with words in a mixed-up order and ask them to arrange the letters correctly. For example, present cat as atc, bag as agb, etc.

8. Copying or printing words with a rubber stamp set provides an interesting activity for some children. This activity calls attention to the sequence of letters, and complexity can be increased by increasing the number of letters to be copied "from memory."

9. Present the child with an uncluttered picture of an object known to him. Allow the child a short time to study the picture. After you have removed the picture, ask the child to describe what he saw.

10. Each in its Place

    Teacher or child arranges three, four or five objects in a row, while rest of the group covers eyes. Children look at the objects for several seconds. Then one is called on to face class (turning his back toward row of objects), and name them in order, while other children watch. Order of objects is then changed and activity repeated.

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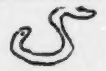
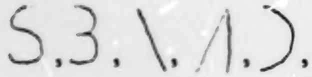
11. Touch Four People

Teacher goes around the room, touching four or five people. A child is asked to tell who was touched, giving names in correct order. If the child can't remember, hints are given, such as, "It's someone with red on". A variation of this game would be touching four objects.

12. Pictures that closely correspond to the shapes of individual letters can be presented with the letter as a memory device for children. For example, a wiggly snake  can be presented with the letter S, a telephone pole with the letter T, a wheel with the letter O, etc.

13. Present children with partially completed letters and ask them to identify and/or complete them. For example,

, etc.

14. Show the child the alphabet with specific letters omitted. Ask the child to fill in the missing letters. For example, a b ___ d___ f g h ___ ___ k ___ m, etc. The number of missing letters is increased as the child progresses.

15. Hide Away

Using a brown paper bag (or a large basket), teacher goes around classroom, holding up objects, then placing them in a bag. One child is chosen to tell what is in the bag; another takes objects out. The rest of the class is involved, for the children are asked to give hints. This game will be enjoyed more if teacher and children bring a variety of things to put in the bag.

16. One From the Ring

Have the children sit in a circle (ring). Place balls (or other group of objects) of different colors in the center. The children hide their eyes while one child removes one of the balls. The object of the game is to tell which color ball has been removed. The child who is called upon, and knows the correct color has the next turn. The difficulty of the game is of course determined by the number of balls placed in the center.

ACTIVITIES TO IMPROVE VISUAL DISCRIMINATION

Visual discrimination is described as the ability to see the differences and likenesses of objects or symbols. This skill is necessary for a child to recognize a word in context as well as in isolation, to match geometric shapes, forms or symbols such as letters, numerals or words; or to recognize people or objects when a characteristic of their physical appearance is changed. Following are some activities to improve a student's visual discrimination skills.

1. What Is This Shape?

   Teacher "draws in the air" a large outline of some object in the room. Children are asked to look around and guess what was outlined. Sometimes hints as to the location of the objects are needed. Teacher may also draw in the air numbers or letters of the alphabet and call on children to identify which one was drawn.

2. Find a Shape Like This

   Teacher shows a cardboard circle form. A child is asked to touch everything in sight in the room that is the same shape (or give the child a definite number of objects to touch that are the same shape). The teacher then uses square, rectangle, triangle, etc.

3. Get Something Bigger

   Teacher places a very small object on a table. A number of children are called on, in turn, to get something bigger and place it on the table. It is fun to try to get something larger than the object each time. If rocks are available, it is especially fun.

4. Get Something Smaller

   Preceding game in reverse.

5. Have the child sort objects according to shape. Beads, blocks, paper shapes, etc., can be used for sorting activities.

6. Use templates at the chalkboard for tracing. Eventually have the child trace smaller templates at his desk. Use circle, square, triangle, rectangle and diamond templates. Gradually lead the child to trace the form from memory.

7. Have children match manipulable shapes (made of wood, plastic, tag board, etc.) to similar shapes on a paper. Use blocks which directly match block designs on paper.

8. Provide the child with a bag full of different-sized wooden shapes. Have the child feel and describe one shape in the bag.

9. Arrange four checker patterns, three identical and one slightly different. Have the child pick out the different pattern and explain the difference. This activity may also be used with dominoes, blocks, sticks, pegs, etc., (Valett, 1967).

10. Play the game "Twenty Questions" using shapes within the room. Have one child choose an object in the room and let other children ask questions about the shape.

11. "I Spy"

The teacher describes an object without mentioning its name. The children look around the room until they locate the object which she described. The first one to say, "I Spy," and who correctly identifies the object, has the next turn to describe something in the classroom.

12. Have children toss bean bags to particular shapes. Before each toss, instruct the child to "toss the bean bag to the square holes" or "toss the bean bag to the round holes."

13. Present the child a series of identical designs, numbers, or letters with one smaller or larger than the others. Have the child choose the one that is different in size. (Vallet, 1967)

14. Older children can match letters presented in manuscript, cursive, and typed forms. Also, ask children to identify letters or numbers presented in a variety of positions.

15. Have children match lower- and uppercase letters. This activity can be varied by having children find and cut out as many A's, M's, etc., as they can find in magazines.

16. Behrmann (1970) suggests providing children with a worksheet similar to the example below and having them circle the word that is the same as the word at the top of the column.

clock	floor	lead
cling	flute	leaf
click	flour	lead
clock	flood	leak
clear	float	lean
clean	floor	leap

17. The Frostig (1964) program provides sequentially structured activities for developing form-constancy perception.

18. Keep the child's desk and work area as free as possible of visual stimuli. Portable study carrels often provide an effective noncluttered environment for some children.

19. Have the child sort different objects according to size, color, texture, or shape. Gradually build up the number of objects to be sorted.

20. Have children play games to discriminate objects in a room. Ask the child to find the square objects, the wooden objects, the objects larger than a chair, etc.

21. Prepare pictures with "hidden" figures. Ask the child to find all the shoes, pencils, or cups in the picture.

22. Provide the child with a picture and ask him to point to various objects. For examples:

    "Point to the smallest child."
    "Point to the upstairs window in the house."
    "Point to the girl's earrings."

23. Behrmann (1970) suggests having a child stand in front of the room and letting the other children study him for a short period of time. Have the child leave the room and change something (e.g., removing a belt, changing bracelets to another hand, etc.). On his return to the room, let the other children try to determine what is different.

24. Draw overlapping figures and designs for the child to visually differentiate (Valett, 1967). Acetate overlays can be placed over pictures, and the child can locate specific objects with a grease pencil or his finger.

25. Older children can be asked to find a certain sequence of letters in a word, a sequence of sentences in a paragraph, or a name in a telephone directory.

26. Underline sentences to be copied from the board with colored chalk and place a crayon line of corresponding color on the paper (Compton, 1965).

27. The Frostig (1964) program includes a variety of exercises that can be used in developing figure-ground perception.

28. Place a number of objects (cup, pencil, ruler, block, eraser, nail, etc.) in front of the child. Display a duplicate object, such as a pencil or block, and ask the child to pick up the similar object. Initially, only three or four objects should be included. As time progresses, and the child improves in this skill, increase the number of objects.

29. Display a number of buttons of different sizes (or nails, blocks, pieces of the same color paper, etc.) in front of the child. Instruct him to match the buttons according to sizes or shapes.

30. Match pictures of objects with the actual objects. Variations of this activity could include allowing the child to cut pictures from magazines to match with actual objects or matching pictures to pictures.

31. Give children various shapes of macaroni to sort. Initially, the child may group the various macaroni according to shape and place them in small boxes. Later, the macaroni may be colored and sorted according to shape and color.

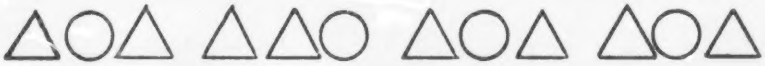
32. Display three triangles and one square. Ask the child to identify the shape that is unlike the other. Various geometric shapes may be included. As you proceed with this activity, increase the number of shapes to be discriminated. Shapes of different colors may be used after the child learns shape discriminations.

33. Encourage the child to become aware of sizes and shapes. Cut out different sizes of squares, circles, triangles, etc. Explain to the child that a square is still a square even though it might be smaller than others. This activity might be extended by having the child find all of the square shapes in a room or all of the circle shapes in a magazine.

34. Describe an object that is very familiar to the child. Ask the child to find that object among four pictures (or objects) that are presented to him. For example, "I am thinking of something that is round, that bounces up and down, and that you need to play baseball.

35. Have children complete dot-to-dot pictures of familiar objects, animals, etc. Gradually increase the detail of the pictures and ask the child to describe them.

36. Present the child with different arrangements of blocks, geometric shapes, familiar objects, etc. Ask the child to choose the one arrangement that is different from the others and to explain why. For example,



37. Play letter bingo with small groups of children. In this activity, cards with different letters printed on them are passed to each child. The teacher or another child covers the appropriate letter. The first child to fill a card is the winner.

38. Have children trace various letter templates and stencils.

39. Let the child use the typewriter to find specific letters. Children can be instructed to find certain letters in a given amount of time.

40. Present rows of four- or five-letter cutouts to the child. Ask the child to circle the same two letters in each row. Gradually work to finer discriminations, such as b and d, m and n, p and q, etc. This activity may be duplicated for seatwork.

41. Present letters of varying size to the child and ask him to match the same letters. A large M can be presented with a very small M, along with a medium-size lowercase m.

42. Tape an individual alphabet to each child's desk to provide children with a quick reference and guide.

43. Dot-to-dot pictures may be used with letters. The teacher can direct this exercise by instructing the child to: "Draw a line to the letter p, now a straight line over to the letter s, down to the letter b, etc." This activity can also be planned so that the lines are drawn in the exact sequence of the alphabet.

ACTIVITIES TO DECREASE REVERSALS AND/OR INVERSIONS

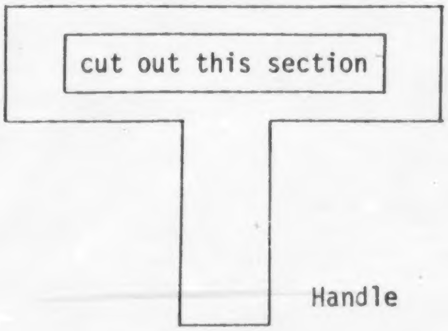
Some children will write and read some letters or words backwards, rotated, or inverted (Wallace and McLoughlin, 1975). There are a number of possible causative factors for this: failure to develop a left to right eye movement, or reading pattern, mixed dominance, i.e. left-eyed and right handed; the child may not be aware that the order or position in which letters appear makes a difference; immaturity; and lack of attention to details (Ekwall, 1970). The following are some suggested activities for correcting a child's tendency to reverse letters or words:

1. Concentrate on only one of two reversal letters. For example, teach b and do not include I until the child can consistently recognize b.

2. Draw arrows pointing from left to right under troublesome words.

3. Use flash cards for practice on troublesome words. Have the students write the words themselves and trace over it with their fingers.

4. Cover words or sentences with hand or a card. Read the word or sentence as it is uncovered. The student may also find it helpful to make a window marker as shown in the diagram below. The child uses it as he would a regular marker, but lets the line of print show through the slot. Mark an "x" or star on the left side as a cue to a starting point. (Edwell, 1970).



5. Print frequently reversed letters on oak tag strips. These letters should also be outlined on tracing paper.

6. Instruct the child to trace specific letters on sandpaper, salt trays, etc. Be sure that the child says the name of the letter as he traces it.

7. Place word on flash cards and present them to the child by covering up all but the first letter. Slowly uncover additional letters until the child correctly pronounces the word. The activity emphasizes left-to-right orientation. An overhead projector may be used.

8. Present children with a stimulus word and four choices from which to choose the matching word. (Wallace & Kaufmann, 1973) For example,

pot	otp	top	tip	pot
lap	pal	pil	lap	alp
war	row	war	raw	awr

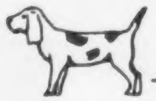
9. Have the child make an association for letters that are reversed. For example, children with a freckle on the left hand can remember that a d points in that direction. Likewise, children who wear a ring on one of the fingers on the right hand can associate the ring with the direction of the letter b.

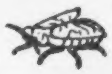
10. Print frequently reversed letters on oak tag strips. These letters should also be outlined on tracing paper. Let the child match the tracing paper letter with the oak tag strip by placing the tracing paper over the letter.

11. Instruct the child to trace specific letters on sandpaper, salt trays, etc. Be sure that the child says the name of the letter as he traces it.

12. Describe a letter and have the child find that letter among three or four placed in front of him. For example, "I am thinking of a letter that is a straight line up and down and another line straight across."

13. Give children words with missing letters accompanied by matching pictures. This exercise may emphasize frequently reversed letters. For example,

 ____og

 ____ee

14. Place words that are frequently reversed on flash cards and use them for periodic drills. Arrow cues may be added for help. For example,

SAW
→

15. Place words on flash cards and present them to the child by covering up all but the first letter. Slowly uncover additional letters until the child correctly pronounces the word. The activity emphasizes left-to-right orientation. An overhead projector may be used.

ACTIVITIES TO IMPROVE AUDITORY MEMORY AND SEQUENCING

Auditory memory is described as "the ability to retain and recall general auditory information." Auditory sequencing is defined as "the ability to recall in correct sequence and detail prior auditory information." (Valett, 1967) A child deficient in these skill areas will have a difficult time following a series of oral instructions; recalling messages; recounting a sequence of events from a story; and blending phonic units into a complete word. While the child's hearing acuity may be intact and he or she may be able to understand auditory input, recalling that input and acting on it in some way may prove difficult. (Mann and Suiter, 1974). Some possible causes of deficient auditory memory and sequencing skills are:

- the child has not been required or has not learned how to remember auditory input
- the child does not or cannot pay attention to auditory input
- the child's environment is noisy and the child is able to "tune out" auditory input
- the child may have some central processing dysfunction making him unable to remember auditory input
- what the child is asked to remember is not relevant to him or her and therefore not retained.

The following are some activities to help a child improve his or her auditory memory and sequencing skills:

1. Tap or clap out rhythm patterns and have the child repeat the pattern.
2. Have the child repeat digits, words, sentences, starting with a series of two.

3. Present a series of verbal commands to the child. Instruct the child to follow the sequence of the commands. For example, "John, throw this paper in the wastepaper basket, then pass out these books to the boys, and then erase the chalkboard", or "hop to the door, turn out the light and skip to the chair."

4. Present a series of movements to a small group of children and have them follow the sequence. For example, "Jump, hop, clap, and skip."

5. Prepare a tape, or present orally, naming several easily drawn nouns like "house". Children listen and draw the object. Gradually increase the complexity of the description e.g. a small house with three windows and a tall door, etc.

6. Play a record of a story or tell a story to a small group of children. Upon completion of the story, have the children divide a paper into equal sections and draw the events of the story in sequence.

7. Give children a blank piece of paper. Direct the children to perform a variety of tasks. For example, "Make a circle in the upper-right-hand corner, draw a straight line in the middle of the paper, write your name on the line," etc. This activity may be made more structured by preparing worksheets with various geometric designs and directing the children to perform specific tasks. For example, "Write the first letter of the alphabet inside the square, color in the triangle with your red crayon," etc. (The verbal directions for these activities may be placed on a tape recorder.)

8. Help children play successive addition games. For example, "I went to the zoo and saw a lion." The next child adds another animal. "I went to the zoo and saw a lion and a tiger." Continue adding animals with each successive child.

9. Say a number of nonsense sounds or words that the child repeats after you. Whisper sounds from behind the child that he repeats in sequence.

10. Play telephone games in which you tell the child a telephone number. He writes the number down and dials it. Eventually, he has to remember the number without writing it down.

11. Play a detective game in which the child phones the detective and describes a mystery. The detective has to devise a way to solve the mystery.

12. Play "I packed my knapsack." The first player in the circle says, "I packed my knapsack and in it I put . . .", and he names the item. The second player repeats, "I packed my knapsack and in it I put . . ." and he names the previous player's item and adds one of his own. The list of items grows and a person is "out" when he forgets an item or places it out of sequence.

13. Tell the child a story and have him repeat it back to you. Ask him questions about the story.

14. Sing a tune and have the child repeat it.

15. Play "I Touched The Table." The first child touches the table and another object, perhaps a chair, and says, "I touched the table and a chair." Each player adds an object that he touches, repeating each of the previous players' object in correct sequence. A player is "out" when he forgets the name of an object or says it out of sequence.

16. Play restaurant with children remembering "food orders" to give the cook.

17. Read a story which is short, repetitive and filled with action. Let the child retell it, recall main ideas and details or act it out.

18. Games which require memory:

    A. "I went to a farm. I saw a horse, a pig, a sheep, and a goat. Now tell me the names of the animals I saw."

    B. Present a series of words that have some relationship. Have the child repeat words in correct sequence. For example, apple, peach, orange, banana, or red, yellow, blue.

    C. Songs, such as "Old MacDonald Had a Farm," which require adding to the original.

19. Use a listening center with recorded or taped stories.

20. The teacher may describe colors for simple pictures while the child closes his eyes. He then draws the pictures using the described colors.

21. Prepare treasure maps for each child. Give several instructions at one time (e.g., go up the green path by the white house and follow the circular drive). Children may compete to reach the treasure.

22. Present a series of movements to a small group of children and have them follow the sequence. For example, "Jump, hop, clap, and skip."

23. Ask a child to describe another child in the room. Using only the pertinent characteristics, draw a picture of the child. After a number of these have been completed, ask individual children to identify and describe certain pictures.

24. Ask children to trace and write letters or manipulate three-dimensional letters as they hear the name of a letter. Feeling and noting the way the speech organs perform in making different sounds is also helpful.

25. Take a walk with the children around the playground listening, watching, and observing. Once you are back in the classroom, have the children list by categories (e.g., animals, transportation) what they heard. This activity can also be used on field trips, walking to and from school, etc. Tape record your field trip and have children predict what happened next.

ACTIVITIES TO IMPROVE AUDITORY DISCRIMINATION

Auditory Discrimination is defined as "the ability to hear similarities and differences between and among two or more sounds" (Gillespie and Johnson quoted in Wallace and McLoughlin, 1975). Auditory discrimination is an important skill related to acquisition of reading skills (Heilman, 1972). A child with deficiencies in auditory discrimination will have a difficult time learning to read using a phonic approach because of the emphasis on auditory input. The child with deficient discrimination skills may also have difficulty learning from oral instruction, especially if he has much difficulty in discriminating sounds. The following are some activities that may be helpful in improving a child's auditory discrimination skills:

1. With eyes closed, children are to judge what part of the room a sound is coming from, and whether it is near or far.

2. Have one child hide a ticking clock or other sound-producing item and have other children try to find it by locating the sound.

3. Select two different sounds, such as a bell and a drum. Stand behind the child and ring the bell. Ask the child to point to the object used to make the sound. Gradually increase the number of sounds that can be discriminated. Discriminations should also become finer as the child progresses.

4. Make analogies between sounds. Whistling wind sounds like. . ." "A boiling teakettle sounds like. . ." "Walking on crisp snow sounds like. . .". Have the child repeat the sounds.

5. Instruct the child to close his eyes. While his eyes are closed, tap some object in the room or make another sound. When the child opens his eyes, ask him to identify the sound from among three that are presented. Include sounds such as crushing paper, knocking on the door, tapping on glass, whistling, animal sounds, writing on the chalkboard, etc.

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6. With the aid of a tape recorder, ask the child to identify common sounds such as an airplane, a car, various animals and household appliances, etc. These sounds can be gradually moved to voices of familiar individuals.

7. Associate a sound with a picture or with a real object. The following pictures or items are often helpful to most children (Russell and Karp, 1938):

a__apple
b__boat
c__cat
d__duck
e__egg
f__fox
g__goat
h__house
i__ice cream
j__jacks
k__kite
l__lamp
m__mouse
n__nest
o__orange
p__pail
q__queen
r__rooster
s__sack
t__tail
u__umbrella
v__vest
w__wagon
x__xylophone
y__yard
z__zebra

8. In working with the sounds of letters, work initially with grossly different sounds, such as /m/ and /p/, /s/ and /b/ or /a/ and /v/. Gradually work into the finer discriminations such as /v/ and /f/ or /m/ and /n/.

9. Read a word, such as "fat". Ask the child to repeat the word. Then read a list of words, and have the child clap when he hears a word that rhymes with the stimulus word.

10. The rhyming activity described above can also be used for nonrhyming words. The rules change so that the child claps when a nonrhyming word is called. For example, the teacher may use "fat" as the stimulus word, and then "mat, cat, pot, sat, dog." Gradually, the discriminations should become finer.

11. Have the children say all the words they know that begin with a specific sound.

12. Say a word, such as "sad", and have the child give a word that rhymes with it but has a different initial consonant.

13. Give the child a box containing a number of different toy objects, such as boats, cars, plastic dishes, chalk, pencils, erasers, etc. Ask the child to select all the objects that begin with the /p/ sound. You may have five or six boxes that emphasize different sounds.

14. Give the child a list of rhyming words and direct him to circle the parts of the words that are alike. This activity provides a check to see if the child is aware that rhyming words have parts that are spelled similarly.

15. Write sounds on large pieces of paper and place them on the floor. As you say a word beginning (or ending) with a specific sound, the child must walk to the sound he has heard.

16. Read a sentence to the child with a word omitted. For example, "We play baseball with a ball and a (bat)." Instruct the child to change the omitted word to one that rhymes with it. Acceptable responses for this example include, "cat, mat, fat, sat, etc."

17. Give children a list of words and ask them to circle all the words which rhyme with a given stimulus word. This activity may be varied by giving the child a list of words and instructing him to list a word which rhymes with the given word.

18. Provide the child with a number of different pictures. Direct the child to match those pictures whose names rhyme. This activity may be varied by duplicating pictures for seatwork.

19. Telephone Pole

Teacher gives a series of directions quickly, such as "Clap hands, hop on all fours, point to the ceiling, jump, stamp feet". When she calls, "Telephone Pole" all straighten up and stand still like "telephone poles".

20. Let's Act It

Teacher tells a short story. Whenever there is action or facial expression indicated, teacher says, "Let's all show what he did", or "Let's show how he looked."

21. What Song Am I Tapping?

Teacher may mention the names of three familiar songs. She then taps the rhythm of several bars of one. Children try to guess which song it was.

22. Listen and Do

At first, the children imitate the actions of the teacher who may put her hands on her head, shoulders, knees, behind her back, etc. Then the teacher says one thing, but does another. The children must follow the directions of her spoken words rather than imitate the actions. (This is similar to "Simon Says".)

ACTIVITIES TO IMPROVE RECEPTIVE LANGUAGE

Receptive Language can be described as the ability to attach meaning to the spoken words of our language. Children with receptive language deficits may have difficulties with directionality, learning left from right, near from far, up from down; interpreting past, present and future; discerning "sense" from "nonsense"; or questions from statements; or interpreting intonation which indicates the emotional content of verbal communication. They may respond inappropriately to questions or directions, or bewildered, not respond at all. A few possible explanations for Receptive Language deficits include:

- auditory perceptual problems
- inadequate need to attend to or respond to verbal stimuli
- inadequate vocabulary
- impoverished verbal environment
- excessively verbal environment

(The child has learned to "tune out" to maintain homeostasis).

Following are some activities to improve receptive language skills. Others are also included in the Auditory Memory, Discrimination and Vocabulary sections.

1. Identification of familiar sounds, e.g., record of train whistles, household sounds, animals, records.
2. Have children identify objects by smell only, e.g., onion, perfume, etc.
3. Have children identify objects using only cues of smell and touch while they are blindfolded.
4. Have the children group objects together by similar shape, size, or color.
5. Use descriptive pictures and cover part of the picture. See if the children can identify what it is.
6. Ask children to identify action in pictures, in the room, etc.
7. Have the children tell if a pair of words sound the same or different.
8. Have pupils identify familiar objects or situations which are described by the teacher (I'm thinking of something that is red, round, bounces, etc.)

9. Ask children to follow instructions such as put the book on the table, crawl under the chair, go up the slide, and come here to me.

10. Ask the children to answer yes or no to questions of this sort.

    a. Do dogs fly?
    b. Do balls bounce?
    c. Do you have three feet?
    d. Do cats meow?

    If the child does not respond answer the question for him in a complete sentence.

11. Have a picture of each object. After each sentence, ask what the answer might be.

    a. I have something that is round. It is something to eat. It has an orange peeling. What is it? (orange)
    b. I have something that you use when you eat. It has a handle and is round at one end. What is it? (spoon)

ACTIVITIES TO IMPROVE INNER LANGUAGE

Inner Language can be described as the language with which one thinks, and serves to integrate experiences associated with a native spoken language. While frequently thought of as inner speech, inner language is usually much more condesned than vocalized speech, so that an entire concept, or thought may be represented by one or two key words. Some children find it difficult to transform experiences into symbols. Inner language is used for classification, categorization, "chunking" as an aid to memory, selecting relevant from irrelevant information and conceptualizing experience and possibly more. It is the "Logic" language with which the question "Would I find a bed in the kitchen?" is answered.

Receptive Language	Inner Language	Expressive Language
All words are meaningful. It's a question. It needs an answer.	Bed ≠ Food or Bed = Sleep Not sleep in Kitchen or (some other reduced logic.) Therefore, answer...	No, you (usually) wouldn't find a bed in the kitchen.

The information you obtain by asking why a child responded as he did on a particular test item or task provides considerable insight regarding his/her inner language skills.

Following are some activities to help improve inner language skills.

1. Provide box of objects and box of pictures and have children match the items.

2. Have children sort and match like objects (black vs. white buttons).

3. Start a sequence of action and have the children finish it (start to eat, etc.).

4. Have children pair concrete objects as to use or function--needle and thread, etc.

5. Ask children questions involving verbal absurdities, "Would I find a bed in the kitchen?"

6. Have the children name all the things they can think of when you say_________(animal, furniture, person, etc.).

7. Ask questions such as, "In what way is a hat like a coat?"

8. Ask children about groups of items for categorization. Say these words slowly and let the child answer verbally which two go together.

   a. ball, cow, bat
   b. salt, pepper, cheese
   c. shoes, hat, socks
   d. pencil, light, paper

9. Ask children how a group of things are alike.

   a. apple, orange, pear, carrot
   b. bus, train, car, house
   c. river, ocean, lake, mountain

10. Have the children cut from magazines, catalogues, or old workbooks pictures that fit into different categories: things that we wear, good things to eat, animals that we find on a farm, things we can ride on, and so on.

ACTIVITIES TO IMPROVE VOCABULARY AND EXPRESSIVE LANGUAGE

Often a child whose experiences in general are limited or who lacks experience in reading and therefore with words has a difficult time expressing himself, either orally or in writing. His somewhat simplistic verbal responses may not be an accurate reflection of the quality of his thought. What he expresses may be the closest approximation to his thoughts that his vocabulary and expressive abilities allow him. Language is also a social skill and it may be that a particular child comes from a non-verbal environment or that he or she has no particular wish, or need, to communicate verbally. Perhaps the child is overprotected and, having his or her needs anticipated and met, has not developed adequate verbal skills; or the child may be angry or withdrawn and unwilling to verbalize. In helping a student increase his or her vocabulary and/or expressive skills it is important that the content of the material be relevant to the learner. New words learned or new aspects of expression must fit in to the learner's realm of interests and needs to ensure he or she retains what was learned. The following are some suggested activities for developing vocabulary and expressive skills:

1. Introduce a "word of the day" and encourage children to use the word throughout the day. Permit particular children to present words on certain days (Platts, 1970).

2. Provide children with a word that has multiple meanings, such as "run". Have each child in turn use the word in a sentence employing a different meaning each time.

3. Collect colorful and exciting pictures, cartoons, paintings, etc. Have the child describe the action by listing descriptive words. Discuss the words with the entire class.

4. Have the child build a list of words from one common root, such as ball or man. Assign a point for each word. The child with the most points wins the game.

5. Have the child list the possible synonyms for particular words such as cars, babies, days, etc. (Smith, 1967).

6. Play "hangman" where children fill in the blends of a word by guessing letters. For each letter guessed incorrectly additional parts of the body are added until the individual is "hung".

7. Write any ten letters on the board and have children compose a ten-word telegram using the letters on the board as the initial letters for the ten words. Vary the activity by specifying the nature of the telegram (Platts, 1970).

8. Ask the child to name all of the objects in a room or a picture during a specified time limit. Keep a graph to note improvement (Lerner, 1971.).

9. Stop periodically while reading a story and have the child supply a word that fits with the context of the story.

10. Provide the child with a sentence (e.g., "It rained very hard last night.") Ask the child to say the same thing in as many different ways as possible. Encourage the use of unusual words.

11. Read a story to the child and have him retell the story to another child. Encourage the child to retell the story in his own words.

12. Have the student read as widely as possible on his free or low instructional level. In doing so he will learn new words from their context. (Ekwall 1970).

13. Have the child start a card file of new words. Write the word and the definition on the front of the card. On the back, write the word in its proper context in a sentence.

Possible activities to improve expressive skills:

A. Forming Words and Sentences

1. Provide the child with familiar objects to name. Use fruit, clothes, toys, etc. Say the words and have the child repeat them. As the child progresses, use the word in a short sentence.

2. Proceed to naming pictures of animals, furniture, food, etc. Work on the classification of pictures into categories.

3. Facilitate word recall by teaching word association through pairs of words (e.g., hard-soft, salt-pepper, hot-cold, etc.). Pictures may be used to supplement the words (Johnson & Myklebust, 1967).

4. Build known words into sentences through the use of repeated phrases. For example:

   "This is a dog."
   "This is a chair."
   "This is a boy."
   "This is a book."

5. Prepare a series of sentences with key words missing. Read a sentence to the child and ask him to supply the key word. For example:

   "A dog makes noise by______________."
   "Bicycles have______________wheels."
   "We have ______________fingers."

6. Prepare a grab bag of familiar objects. Have the child choose one object and describe the object in as much detail as possible. Permit other children to guess the object being described.

7. Show a picture to a child and ask him to describe what is happening in the picture. More direct questions, specific to a particular picture, can also be asked. Smith (1968) also recommends having the child tell what went on before the picture was taken, and what happened afterward.

8. Have the child paint or draw pictures. Ask particular children to describe their pictures to the rest of the class.

9. Smith (1968) suggests having the child respond to questions emphasizing verbal fluency where nearly any response a child gives is acceptable. For example:

   "What would happen if we didn't have electricity?"

10. Give the child practice in using articles and prepositions by providing him with certain key words (e.g., house, boy, door) and having the child build a sentence around these words.

11. Karnes (1968) recommends asking the child "Tell me how," "Why do we," or "Tell me where" questions. For example:

    "Tell me how...
    you tie your shoes.
    you play kickball.
    your father washes the car."

12. Gather a number of kitchen utensils or tools. Have a child describe the use of one utensil or tool without using gestures.

B. Grammar and Syntactical Usage

1. Encourage the child to respond in sentences. Incorporate a child's one-word responses into a sentence and have the child repeat the entire sentence. Groups of children can also repeat particular sentences together.

2. Display a picture before the child and describe the picture in a sentence. For example, "This boy is running." Have the child repeat the sentence. Eventually, omit certain words for the child to insert as he repeats the sentence.

3. Provide pictures which illustrate past, present, and future tense of verbs. Sequences of an individual about to do something, doing something, and completing the same act can be described and discussed (Johnson & Myklebust, 1967).

4. Have the child describe an activity as he is jumping, skipping, etc. For example, "I am jumping." upon completion have the child say, "I jumped very high," or "I jumped over the box."

5. Write a sentence on the chalkboard with the words in an incorrect order and have the child arrange the words in the correct order. Flash cards containing single words can also be arranged into sentences.

6. Prepare a series of sentences with missing words. Read these to the child and have him supply the omitted word. Plurals, adjectives, prepositions, etc., can be emphasized with this activity. For example:

"We went______________________the store."
"The boat is____________________the water."
"The plane is________________________the sky."

7. Provide the child with various pictures showing single and multiple units of different objects. Ask the child to point to the girl in one picture or the girls in another picture. Eventually, have the child make a statement about the pictures, such as "The girls are playing ball" (Karnes, 1968).

8. Provide children with phrases (e.g., the big dog, to the mountains, under the house, etc.). Have the child build a sentence using the phrases in the standard syntactical form.

9. Bush and Giles (1969) suggest reading a number of sentences to the child, leaving out a word, and having the child fill in the correct ending. For example:

   "I have many dresses but I have only one blue_________."
   "Yesterday we played ball, and today we will_______ball."
   "I like to jump rope, but after I have been____________
   for a while I get tired."

ACTIVITIES TO IMPROVE INSTRUCTION FOR THE HEARING IMPAIRED

A significant deterrent to a child's development of adequate auditory skills and language may be the presence of a hearing loss. Whether or not the loss is permanent or transitory, several adjustments can be made in the general classroom to aid the hard of hearing child. However, it must always be remembered that hearing, like all other faculties, is highly individualistic and requires that all adjustments be made only after the following factors have been carefully evaluated for each individual child.

1. Type and degree of hearing impairment
2. Intelligence
3. Age at onset of hearing impairment
4. Speech impairment
5. Preschool training in language
6. Home environment
7. Emotional stability
8. Visual acuity

The following general suggestions may be made:

1. Seat the child near the source of sound and favor the better ear.

2. Encourage the child to watch the faces of those who are talking in the class.

3. Try to face the hard of hearing child as much as possible during instructions and when giving assignments. Stand still and in a place where the light falls on your face. Avoid covering part of your face with your hand or a book.

4. Avoid the use of loud tones, exaggerated lip-movements, and forced facial expressions in speaking to the child with deficient hearing. Restatement when the child fails to understand will be more effective than mere repetition.

5. Encourage the child to speak distinctly. Help him to guard against a dull, monotonous voice and inaccurate diction which tend to result from a loss of hearing acuity.

6. Since a hearing impairment is a defect which affects the language processes, the child should be encouraged to compensate by a more active interest in all language activities: Reading, spelling, original writing, etc.

7. Help the hard of hearing child to become familiar with new or additional vocabulary before a new topic is introduced to the class.

8. Keep the hard of hearing child active in all forms of musical achievement and physical education activities.

9. Watch the child so that he does not withdraw from the group or suffer personality changes as a result of his hearing impairment.

10. Be careful not to overestimate the hearing efficiency of the hard of hearing child. When he is closely attentive he apparently hears quite well. However, he is hearing at the expense of greater effort than the normal hearing child expends and therefore it is to be expected that it will be difficult to hold his attention.

11. Be vigilant in noting frequent colds, infection of the nose and throat, and a running ear. Report such observations to the proper source for immediate medical attention.

12. If the hard of hearing child has a low intelligence quotient, it may be not an indication of low mentality but an indication of a lack of educational experiences due to imperfect acquisition of knowledge.

13. The hard of hearing child should be encouraged to continue his education beyond the high school level.

14. The hard of hearing child should receive special instructions in speech-reading (lipreading) if possible.

15. Any special consideration for the hard of hearing child should be extended without calling attention to the defect.

16. In some cases it will be advisable that the child with impaired hearing use a hearing aid in the classroom.

17. Individual conferences with the parents of the hard of hearing child are often necessary and advisable in order to bring about a harmony of thought and purpose between the child, the parent and the teacher. In such a conference, the teacher should stress, besides the above applicable points, the following considerations:

    a. Encourage the hard of hearing child to accept his handicap as a challenge which he should meet frankly and openly. Do not become sensitive and overanxious about the defect.

    b. Encourage the child to take part in all family activities and to participate in organized social groups and such as the scouts, athletic clubs, etc.

    c. Encourage the child to develop any special ability that he may have. Prepare him for adult life by instilling in him the proper attitudes toward society.

    d. Do not pamper or treat the hard of hearing child as an exception at home.

ACTIVITIES TO INCREASE ATTENDING AND MOTIVATION

He's never still, always squirming and fidgeting, he's always wiggling.

1. Channel that energy into a constructive activity at frequent intervals.

   Watch for signs of frustration and/or restlessness and provide a change before he becomes too active. Things like going on an errand; helping the teacher by cutting out pictures, letters, etc.; sorting activities; art work if the child is inclined to it (posters, etc.);

   Provide a quiet area for an occasional break when the child can look through a book or magazine.

   Appropriate group activities - games that allow movement; exercises.

2. Give attention and praise when he's not fidgety - especially if that moment is hard to find.

3. Re-evaluate your view of his behavior. What exactly is he doing? Does it interfere with his or others work or does it just bother you?

4. Try to ignore inappropriate behavior whenever this is possible. When an inappropriate behavior demands action, respond in a calm, unemotional, matter-of-fact manner.

He never finishes what he starts and can't work independently.

1. It's very important to let him work at his own pace even if it is considerably slower than the others.

2. Begin using progress charts for accuracy rather than speed. This should be especially helpful with students who have a tendency to hurry through assignments.

3. Break assignments into small components. Give reward or praise after every component is finished.

4. Set up a standard format to be used on assignments. This will do away with the need to give separate instructions on how to complete each assignment.

He is a poor listener. He never pays attention and can't follow directions.

1. Be sure to get his attention first before you start giving instructions. Try giving a cue when it's time to listen. (Clap your hands, a touch on the shoulder, a "special) signal).

2. Give instructions in short, concise phrases--try not to over talk.

3. Play listening games. Call names, give instructions, etc. in a whispered voice.

4. Reward good listening--make it *pay* to be a good listener in your classroom.

5. Be aware of the student who has a hearing or auditory processing problem. Seat him where he can hear and see what's going on, repeat when he doesn't understand, use visual aids as much as possible.

6. Talk with him and tell him you're going to work on listening skills. Spell out what you want him to do and what he shouldn't do.

7. Have him work on an independent study task for two minutes. After he succeeds for two minutes give him a reward and lots of positive reinforcement. Gradually lengthen this study time period.

8. Practice listening with the class. Read a story to the class, something with lots of action, then ask questions or have the kids retell the story.

COUNTOONS

Countoons are simply cartoons that count. You needn't be an artist to make a countoon, often stick figures will quite adequately portray the child's movement cycle.

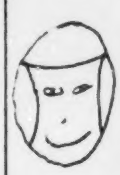
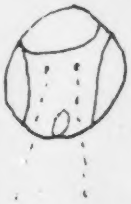
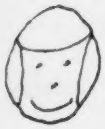
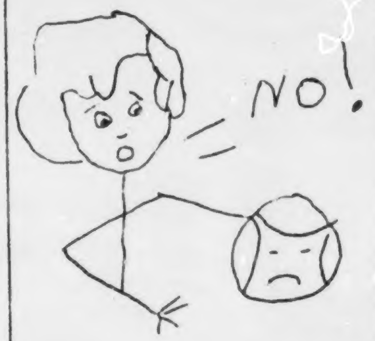
Countoons have been used quite effectively by those observing the movement cycle, a teacher or parent, or the child who is actually emitting the movement cycle. In fact, we encourage countoons to be used for self-counting, as self-counting seems to serve at least two very important functions. First, self-counting reduces teacher or parent time required for counting. Second, self-counting has been found in a number of cases to be a most effective acceleration and/or deceleration tactic. We have seen children with severe problems show dramatic changes merely through writing down thier own count after each occurrence of the problem movement cycle.

However, should self-counting prove ineffective in accomplishing the desired acceleration or deceleration, then the teacher or parent may employ the use of what happens column. At the point in time when the parent or teacher makes a decision to utilize a what happens column, the countoon becomes not only a simple counting device, but also a useful recording tool.

The countoon has three basic components:

1. What I do picture sequence.
2. The My Count column.
3. A What Happens column.

An example is the following countoon for a child with a crying problem:

What I Do			My Count	What Happens
			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	

Countoons let the child know exactly:

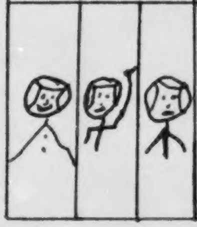
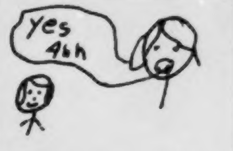
1. What he is doing inappropriately.
2. What is the expected behavior.
3. What level of mastery is expected in that behavior.

Countoons let the teacher know exactly:

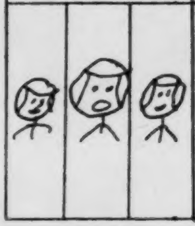
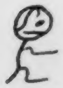
1. What behavior to extinguish first.
2. What behavior to reinforce.
3. What the conditions are for earning reinforcers or punishment.

Sample Countoon Placed on
Child's Desk

Reinforcing:

What I do	My Count	What Happens
	1 2 3 4 5 6 7 8 9 10 11 12	 5pT = 1 min. Free Time

Punishing:

What I do	My Count	What Happens
	1 2 3 4 5 6 7 8 9 10 11 12	 5 = Leave Room

1. Mark each time teacher observes appropriate behavior. Each mark must be paired with verbal praise. If verbal praise is insufficient in itself, pair with other reinforcers.
2. Teacher may identify reinforcing activity for child to earn with specified # of marks or points.

1. Mark each time teacher observes inappropriate behavior. Do not pair with verbal comment. Mark alone may be sufficient punishment.
2. Teacher may specify number of marks or points beyond which the child looses a reinforcing activity.

"This countoon shows what you need to do. This is a picture of someone raising their hand in class, before they speak. Each time I see you raising your hand, before you speak, I will give you a point."

"You may have 1 minute of free time, to play in the free time area, for every five points you earn."

"This countoon shows what you are doing that is not appropriate. This shows someone talking out in class, without raising their hand. Each time I see you talk out without raising your hand, I will give you one mark."

"When you have five points, you must leave the room, and go down to the resource room."